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## MONTHLY MAGAZINE.

JANUARY, 1880.

WE NEED NOT remind our readers that with this number we commence a new volume, nor shall we make any grand promises of what we expect to do the present year. We will, however, endeavor to make our MAGAZINE handsome, interesting, and instructive, and if we satisfy ourselves in these respects, our readers, we are assured, will be well pleased. Nor need our friends be reminded of the pleasures of the holiday season. All, we hope, have improved these joyous times in the society of loved ones, and it only remains for us to wish our readers a very Happy New Year.

Nuts form a not unimportant part of the holiday feasts, and on one of these occasions we were forcibly reminded of the difference in the quality of our native nuts. As they are from seed, scarcely two trees produce exactly the same fruit. What a difference there is in our hickory nuts—some large, with light-colored, thin shells and delicious meat; while others are thick-shelled, dark, and the meat almost tasteless. We have several native Chestnut trees; but one bears nuts far superior, in size, at least, to all the others, and its fruit is the first sought for and the most highly prized. Then we remembered an English walnut tree that we planted more than twenty years ago, and that had borne a bushel or more of fruit every year since it came into a bearing state, and thought that some facts about nut-bearing trees might be of interest to our readers.

It seems to be the general belief that the Filbert and English Walnut cannot be grown in the Northern States; but this is wrong, for we have occasionally eaten of both grown in Western New York during the past quarter of a century.

### NUTS AND NUT-TREES.

And now, when comes the calm, mild day, as still such days will come,  
To call the squirrel and the bee from out their winter home;  
When the sound of dropping nuts is heard, though all the trees are still,  
And twinkle in the smoky light the waters of the rill,  
The south wind searches for the flowers whose fragrance late he bore,  
And sighs to find them in the wood and by the stream no more.  
—BRYANT.

To the boys and girls of rural districts the nutting season has its peculiar charms. From the time the first bloom appears on the trees, all through the season, as the husks swell and increase in size, until their bursting contents, aided by the cold nights or the first autumnal frost, gladden the youthful sight, this delicious fruit-crop is watched with keenest eagerness. The *bon vivant*, whose excesses and unnatural life have permanently disordered his stomach, the grand work-room of the human laboratory, or those who are suffering in the same manner through the ignorance of the matron who supplies her table with a diet of salt-pork,

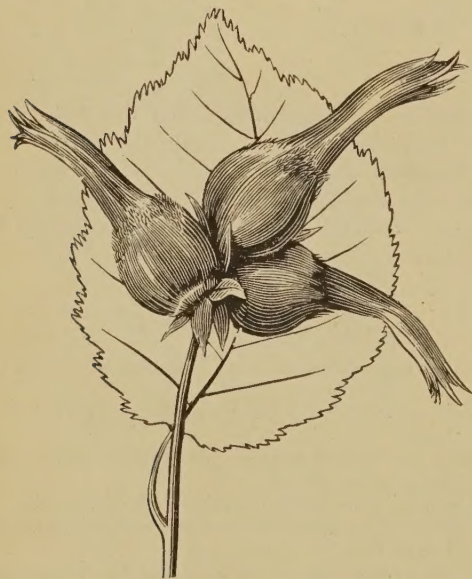


salt-rising or sour bread, or vegetables slightly fermented, may say that nuts are indigestible, but no healthy boy, girl, or squirrel will believe such a story.

Nuts are very nutritious and very agreeable to the taste, and the extent of their dietary employment depends almost exclusively upon their production. If the ordinary supply should be doubled in quantity there is no doubt a ready market would be found for the whole. Our country is wonderfully well adapted for the production of many of the best kinds of nuts, and these will be noticed briefly in this and a future article.

The Filbert brought from Europe and so well known in our shops is a nut highly prized, and, in many parts of Great Britain and Europe, it is cultivated with much care. Our native Hazel is a species of the same genus as the Filbert, and in time, with proper cultivation, could, no doubt, be made equal to the Filbert in all desirable qualities.

Botanists class together the Oaks, the Hazels, and the Chestnuts, constituting of them and a



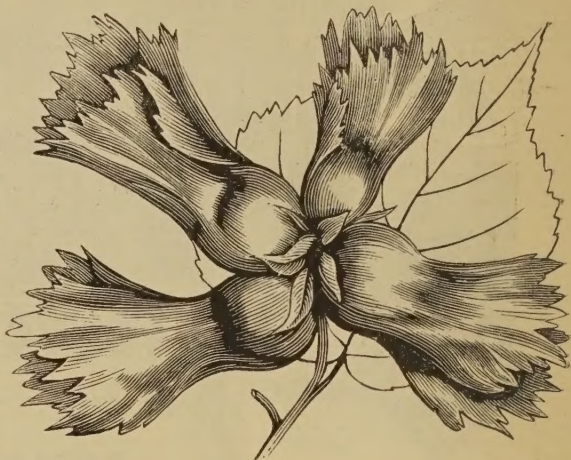
BEAKED HAZEL.

few other genera, the natural order or family, Cupuliferae, or Mastworts. The meaning of the name *Cupuliferae*, or cup-bearers, is sufficiently clear, referring, as it does, to the involucre or husk that holds the nut or nuts.

The Filbert is scientifically known as *Corylus Avellana*, and originally came from Southern Europe. Avellana is the name of a district in Italy where this nut has been largely cultivated. It is said to be very productive, and upon land not too expensive, is highly remunerative.

A writer in an English journal, some two or three years since, after stating at some length his experience in the cultivation of the Filbert,

said, "I think, therefore, after many years experience, that I am justified in anticipating what I have stated, 'that from 200 to 300 pounds sterling per acre may be easily realized in



COMMON HAZEL.

growing Cob Filberts and other nuts (Filberts) of the best quality." Again he remarks, "the only drawback is the time you have to wait for the return, but even this is more than compensated for by the other crops grown on the land for the five or six years you have to wait, so that no time is lost. I say again, no investment can prove half so remunerative on almost any soil." The plantation here referred to consists of ten acres, and the trees were placed eight feet and three inches apart, requiring 640 trees to the acre. Potatoes were planted between the rows of nut trees and good crops raised on the same ground for seven years in succession.

In this country very little attention has been paid to the cultivation of this nut, but there is every reason to think that in many sections it might be a profitable branch of rural industry. For home use alone it would be well to set apart a small area for it. Mr. BARRY, the well-known horticulturist and nurseryman, in a recent note to us, says, "I cannot say why the cultivation of the Filbert has not made more progress in this country, except it be that Chestnuts and various kinds of nuts are so abundant and cheap everywhere. Formerly it received much more attention in our nursery than it does at present. We had at one time a fine collection of varieties and gathered good crops from them every year. From this I infer our climate here is not too cold for it. I believe that the Filbert can be successfully grown here, and have no doubt that in Delaware, Maryland, Virginia, &c., it may be grown with profit on their cheap lands."

The Filbert is far superior to the Chestnut in keeping qualities, for, unfortunately, the Chest-



nut is preserved with great difficulty for more than three months; on the contrary, Filberts are often kept in good condition for two years. This trait of durability in the Filbert gives it a great advantage in marketing, and equally enhances its value when raised for home use.

The Hazel-rod was formerly used as a divining rod in Great Britain. In this country the Witch-Hazel, *Hamamelis*, a different shrub, was employed for the same purpose. It is this shrub that WHITTIER alludes to in his poem, "Hazel Blossoms." The *Hamamelis* blooms late in autumn and early winter, while the true Hazel flowers in spring. A two-branched or forked twig was cut, and an expert, by taking hold of the end of a branch with each hand, leaving the heavy end free and in an upright position, could, perhaps unconsciously, under the influence of a momentary excitement, impart to it a motion by which it would turn downward and point to the ground. This movement was considered as indicating the spot suitable to be excavated for a well, or for the discovery of metal. A belief in the divining rod is still held by the ignorant in some sections. The superstitious belief that displayed itself through the means of the divining rod has since been manifested in ways none the less ridiculous.

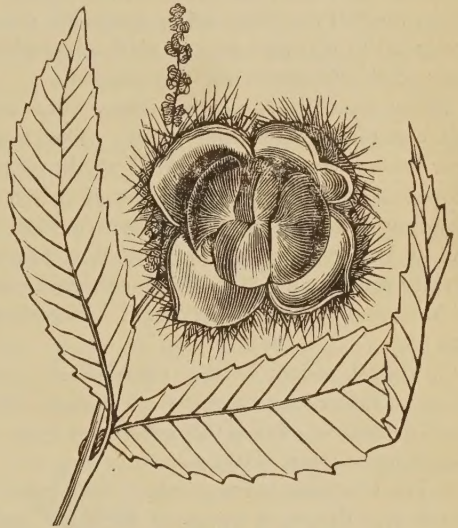
We have two species of Hazel nuts, *Corylus rostrata* and *C. Americana*. The former, or Beaked Hazel, is found principally in the New England States. It is a low-spreading shrub, growing from three to six feet in height, and producing a small nut in a sort of bottle-shaped husk. It is by no means so desirable as *C. Americana*. The latter, or Common Hazel, grows from five to ten feet high, and is spread over a large area of country—especially from New York southward to Virginia and Kentucky, and westward to Nebraska and Kansas. It is a large, sweet nut, and the same skill and patient effort that has produced Strawberries two inches in diameter from the little wild one could, probably, if expended upon the improvement of this nut, give us something very handsome—this is for the future.

The involucre or cup of the Common Hazel, consisting of two leafy bracts growing closely pressed together, is broad and flat, and fringed along the edge, presenting a marked contrast in form to that of the Beaked Hazel. These husks on all the species are quite acid to the taste, and this fact is noticed by SHAKSPEARE when TOUCHSTONE, in "As you Like It," says:

Sweetest nut hath sourest rind,  
Such a nut is Rosalind.

Although the cultivation of the Hazel and the Filbert has been almost entirely neglected,

yet such is not the case with the Chestnut. It is only, however, within the last ten years that attention has been turned to it in earnest. Some twelve years since, the enterprising nursery firm of STORRS, HARRISON & Co., of Painsville, Ohio, in view of the increasing scarcity of timber for building and fencing, and knowing that the Chestnut was rapid in growth and the timber of great durability, instituted a series of experiments to prove that it could be grown from seed in the nursery and transplanted as well as any other tree. The results of the experiments



AMERICAN CHESTNUT.

were highly satisfactory, and it was found, contrary to the popular prejudice, that the Chestnut when transplanted young was as sure to live as any other kind of tree. Since that time they and other nursery firms have raised large quantities of them, and they have been sent into every part of the country, from the Atlantic to the Pacific, and from Wisconsin on the north to Texas at the south. The trees commence bearing from four to six years of age, and usually produce a crop every year. The crop of a full grown tree will range from a half-bushel to a bushel and a half.

The European Chestnut is known as *Castanea vesca*, and ours is not considered a distinct species, but only a variety, and is called *Castanea vesca* var. *Americana*. The nuts are not as large as the European Chestnut, but smaller and better, according to our taste, although we think the European nuts excellent.

The European tree is not quite hardy in many sections of this country where our own is native. Our native Chestnut is usually found growing on sandy loams, but, it is said, in cultivation it will adapt itself to almost any good, dry soil. The timber of this tree is light, strong and durable, and finishes with a fine grain,



adapting it to many purposes of cabinet making, and for the interior of dwellings. It is a beautiful tree in the landscape, and when fully grown is of magnificent dimensions, rivaling the Oak in its grandeur. We see, therefore, that it has a threefold claim upon our attention; its beauty as a tree, its crop of nuts, and its valuable timber when cut. Besides these, another might be added, and that is, its habit to throw up numerous shoots from its stump when the tree has been felled. The saplings grow much straighter and much more rapidly than the tree when first planted. Tall, straight, light poles, needed for very many purposes, can be produced in no other way so well as by plantations of the Chestnut for this purpose.

Many instances could be given of the Chestnut attaining huge dimensions. The largest ever known was one that stood at the foot of Mount Ætna, in Sicily, and was called the Chestnut of the Hundred Horseman, from the fact, it is said, that a company of a hundred cavalry once found refuge and concealment in its hollowed and decaying trunk. Its girth was 204 feet.

A recent writer in the *Cornhill Magazine* gives an interesting narrative of village life in the Apennines. From this article we quote the following account of the Chestnut harvest:

"The Chestnut harvest, which takes place in October, is the great event of the year in the Apennines, and furnishes a recreation, rather than a task, to all classes of the population. The schools have their annual vacation in that month, that the children may assist in it; and it is difficult to find hands for any extra household work while a pleasant gypsy life goes on under the trees. The steep woods are then alive with merry parties picking the mahogany-brown nuts from among the fallen leaves and dropping them into long canvas pouches slung at the waist for the purpose. The boughs are never shaken to detach them, and the burrs fall singly as they ripen, rustling through the leaves, and breaking the forest silence with a heavy thud, as they strike the ground. They lie till picked up from day to day, during the appointed time for gathering them, which lasts a month, and is fixed by municipal proclamation — commonly from Michaelmas Day, September 29th, to the feast of Saints Simon and Jude, October 28th, but sometimes extended by special request, if the season be unusually late, for ten days longer.

"The Chestnut season, unless the yield be exceptionally scanty, is a season of abundance and rejoicing through the country, while the peasants consume the fresh Chestnuts by the sackful, not roasted, as they are eaten in the

cities, but plainly boiled and eaten hot from the husk. The great mass are spread on the floors of the drying-houses—blind, deserted-looking buildings, scattered through the woods for this purpose, and which in the autumn seem to smoulder internally, as the smoke from the fire lit to extract the moisture from the fresh Chestnuts escapes through all the interstices of the roof and walls. From the drying-house they are taken to the mill and ground into *farina dolce*, a fine meal, of pinkish color and sickly sweet flavor, which forms the staple food of the population. From this they make *polenta* or porridge, in other districts made from Indian meal, and *necci*, round cakes baked between chestnut leaves, which are kept and dried for the purpose."

#### WHITTIER'S HAZEL BLOSSOMS.

The summer warmth has left the sky,  
The summer songs have died away;  
And, withered, in the footpaths lie  
The fallen leaves, but yesterday  
With ruby and with topaz gay.

The grass is browning on the hills;  
No pale, belated flowers recall  
The astral fringes of the rills,  
And drearily the dead vines fall,  
Frost blackened from the roadside wall.

Yet through the gray and sombre wood,  
Against the dusk of fir and pine,  
Last of their floral sisterhood,  
The Hazel's yellow blossoms shine,  
The tawny gold of Afric's mine!

Small beauty hath my unsung flower,  
For spring to own or summer hail;  
But, in the season's saddest hour,  
To skies that weep and winds that wail  
Its glad surprisals never fail.

O, days grown cold! O, life grown old!  
No Rose of June may bloom again;  
But, like the Hazel's twisted gold,  
Through early frost and later rain  
Shall hints of summer-time remain.

And as within the Hazel's bough  
A gift of mystic virtue dwells,  
That points to golden ores below,  
And, in the desert places, tells  
Where flow unseen the cool, sweet wells,

So, in the wise Diviner's hand,  
Be mine the grateful Hazel's part  
To feel beneath a thirsty land  
The living waters thrill and start,  
The beating of the rivulet's heart!

Sufficeth me the gift to light  
With latest bloom the dark, cold days;  
To call some hidden spring to sight  
That, in these dry and dusty ways,  
Shall sing its pleasant song of praise.

O, Love! the Hazel-wand may fail,  
But thou canst lend the surer spell,  
That, passing over Baca's vale  
Repeats the old-time miracle,  
And makes the desert land a well.



## THE VERBENA.

Among our garden flowers none is more valuable and none more highly prized than the Verbena. In the olden time this flower was thought to possess almost supernatural virtues, to prevent "blasts" and insure good luck. An old chronicle says: "When they gather it for this purpose, firste they crosse the flower with the hand and then they bless it, thus—

Hallowed be thou Vervain,  
As thou growest on the ground,  
For in the mount of Calvary  
There thou was first found.  
Thou healedst our Saviour Jesus Christ,  
And stanchest his bleeding wound;  
In the name of Father, Son and Holy Ghost,  
I take thee from the ground."

Botanists will not be likely to agree with the use of the Verbena as above given, or its growth in Palestine. It is pretty certain, however, that it was used by the Druids on sacred occasions. To this continent is the world indebted for the species of Verbenas from which have originated all our garden varieties, and it was first introduced into Europe from South America about fifty years ago, and well do we remember the first Verbena flower we ever saw, in 1831. It was scarlet, and of very fair form. About 1835 it began to attract a good deal of attention in this country, new kinds having been obtained from Buenos Ayres. Since that time its improvement has been rapid, and its value constantly on the increase. We have now flowers of every color except yellow, and many striped and spotted varieties. The plants, as most of our readers know, are prostrate, or creeping, taking root freely wherever a branch comes in contact with the soil. With fair treatment it commences to flower in June, and continues to bloom freely until destroyed by frost.

The Verbena is propagated both by cuttings and seed, but if plants are grown several years from cuttings the constitution of the plant is injured, it makes but a weak, sickly growth, is subject to mildew or rust, and produces no seed. Those who purchase plants in the spring for bedding out should see that they are vigorous, without sign of mildew. A good, healthy plant will cover a space from three to five feet in diameter with an abundance of flowers, while a sickly plant will present a beggarly show of shriveled and rusty leaves, few flowers, and make but little growth.

Seed may be sown in the hot-bed about six weeks before the weather will permit transplanting to the garden. If no hot-bed can be had, sow seed in boxes in the house, cover but slightly, keep the earth only moist, and cover the box with a light of glass until the plants

appear. Give light and air, but no cold draughts. Seed grown in nice warm beds in the garden will produce plants, but in the Northern States they will flower late, not until August, perhaps, while if plants are ready to set out by the latter part of May, in a month the bed will be in good bloom.

Cuttings may be taken and struck the latter part of summer. They will form roots readily, but there is so great difficulty in keeping them in good health in the house, either for winter flowers or for next season's transplanting, that we dislike to encourage amateurs to undertake a work where many florists fail. Good, healthy plants exposed for sale in the spring are rather the exception than the rule. With proper knowledge and conveniences, however, good plants can be grown from cuttings, as we have often proved.

We know of nothing that will make a finer bed than the Verbena, particularly when intricate patterns are introduced, for it is so easily kept in any desired form by pegging down the branches.

The seeds of the Verbena are more like sticks than seeds, and some persons have thrown away the "little sticks" and planted the chaff or dried-up flowers that happened to



VERBENA SEED.

be among them. One lady, to whom we sent a few seeds, wrote us that she only found a few seeds and a number of sticks, so we thought it well to give a little engraving of Verbena seeds, all of natural size but one, which is shown enlarged.

## FORMS OF TREES.

In trees nature has afforded us almost endless variety in form and foliage, and quite a diversity even in color, and yet we see very many places, otherwise admirably arranged and planted, where, for want of knowledge, or some other cause, almost every tree is of the same form. If round or drooping trees alone are planted, the appearance is somewhat graceful, but lacks strength and life, while conical trees used alone have an austerity that is far from pleasant.

Those who plant trees for ornament should consider well the size of the tree and the space it will require for full development. Plant for the future and not for the present, and never forget that man may mar but cannot mend the work of the Creator in tree making. No pruning knife, save for some special reason, should be allowed to touch an ornamental tree. On this subject we can give but a few hints, and



to those who wish to study the subject, we recommend *Scott's Suburban Home Grounds*.

Some trees are tall and slender, others stout and tapering, while others again are round, or oval, in outline; some are drooping in habit, while not a few seem to have no set outline, but exhibit their characteristic peculiarities by throwing out branches in the most graceful, and even grotesque manner. In the accompanying illustrations we have endeavored to show these peculiarities in the full grown trees; and by that



DEFORMED TREE.



ROUND.

we mean trees that have had room to grow; not such as may be found in the woods, or by the sidewalks in cities, where the roots have been chopped off here and there to make room for the paving, and the lower branches ruthlessly sawed off to be out of the way of carriages and lamp-posts, causing a miserable, uneven, sickly growth, but a vigorous, healthy tree, with plenty of room to spread its branches and drink in the glorious sunlight, and catch the grateful showers; standing indeed where it can have an occasional tussle with the wind and the storm, thus causing it to send out roots deep and wide, getting a strong hold on Mother Earth, and taking in nutriment as needed. Such advantages may be given to trees planted on a lawn, if we keep in mind

that it is a lawn we are cultivating, and not a piece of woods.

The globular form is well illustrated in the Horse Chestnut, particularly our native Buckeye, or Yellow Horse Chestnut; it leaves out early in the spring, and, when grown singly, makes a growth of forty or fifty feet, forming large, round heads of



OVAL.

dense foliage and massive appearance.

The Sugar Maple is, perhaps, as fine a specimen of the oval form in trees as can be met with. It comes into leaf early, and, when

fully grown, makes a lightsome, cheery-looking tree, for, while its foliage is abundant, it is



PYRAMID.



THE CONE.

not dense or solid, but, on the contrary, its lively colors and warm, broken shadows give it a particularly gay and airy appearance; and such, in general, is the characteristic of all the Maples.

Some of our fruit trees may be admitted on the border of the lawn, near the vegetable garden, and, by such economy, add profit to pleasure. When a low growth of pyramidal form is desired, none is more suitable than a well-formed Pear tree.

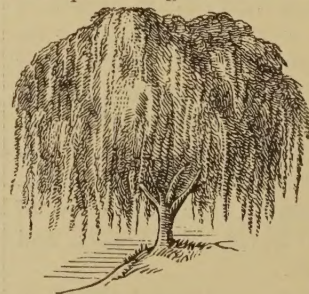
The cone-shape is best seen in the Spruce, and, being an evergreen, is desirable on that account; while for contrast to the forms of other trees, they are very effective.

The dome is illustrated by our own American Elm, the queen of deciduous trees. While young the Elm assumes various and fantastic shapes, but when full grown it forms a large, dome-shaped head, with long, drooping branches of peculiar grace and beauty. It is one of



DOME.

our largest shade trees, and should only be used on large grounds, or in wide avenues, where its grand proportions can be seen to advantage.



DROOPING.

Among drooping trees, the Willow is the type, and in suitable places, makes a very pleasing object. For a small lawn, however, it is not to be compared in gracefulness to the Cut-leaved Weeping Birch, with its tender shades of green and silver bark.





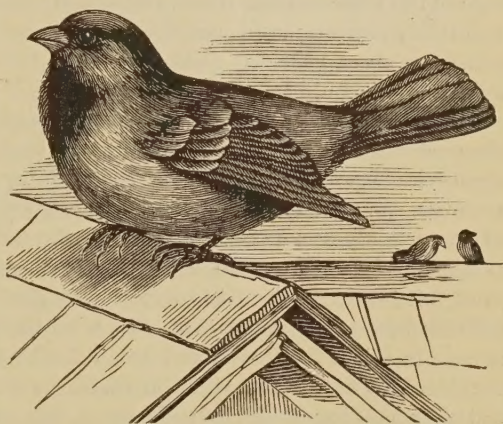
### THE ENGLISH SPARROWS.

In the last number one of our correspondents gave the Young People some remarks about the English Sparrows, and partially promised another article on the subject. We now give our readers, from a gentleman who is a true lover of birds, and who is willing, and it seems able to make pets of the much abused Sparrows. A few years since, one would have thought from the constant remarks of the newspapers that the salvation of the country depended upon the introduction of the English Sparrow, and he who obtained them and fed and housed and petted them was a patriot, deserving the highest honors from the country. Now, by the same authority, the Sparrows are declared to be unmitigated nuisances, without one redeeming quality. None of this is true. The Sparrows are not all evil nor all good. They do us some harm in picking up an honest living, but they do considerable good. While they have young to feed they certainly destroy immense numbers of insects. Some years since there was a similar outcry against the Sparrows in England, and the farmers associated themselves into clubs, known as Sparrow Clubs, and offered a certain prize per dozen for all the Sparrow heads that were brought to them. The boys and others commenced a warfare against the Sparrows, and thousands were destroyed by trapping and other means in almost every neighborhood. This, however, was soon found to be a false step, and was stopped by law. European governments have decreed the entire destruction of the Sparrow by laws, only to ascertain their mistake and hasten their repeal. That they are fond of grain all must admit, but that they destroy insects is equally true.

There are three kinds of Sparrows in England, the House Sparrow, the Tree Sparrow and the Hedge Sparrow, and only one has been brought to this country, the House Sparrow. This bird loves cities, and is to be found in the most thickly settled parts of London as well as villages and their suburbs. It certainly makes its way into the country in Europe, but we do

not think that in the Northern States it can find needed food and shelter outside of our cities. It makes its nests in buildings. The Tree Sparrow is not so common as the House Sparrow in Europe, and it builds its nests in trees. It has a chestnut-colored head, with a black patch on the cheeks, and its home is in the country. The Hedge Sparrow is the prettiest of the Sparrows, being a bluish gray, covered with brown streaks upon the head and neck. Its eggs are light blue, while those of the other Sparrows are dull white with brown spots. It builds its nests in thick hedges. We thought it well to give our readers engravings of all these birds.

MR. VICK :—Being a reader of your MAGAZINE, I know that you are a friend of the Sparrow, and as my sympathies lean that way I thought I would give you a few reasons for such partiality. I have read with pleasure an excellent article in *Harper's Magazine* on the Sparrow, but think my experience goes beyond



HOUSE SPARROW.

some statements of the writer in regard to their living in confinement. I have kept Parrots, Thrushes, Skylarks, Robins, Canaries and Sparrows; and, excepting the English Robin Red-breast, there is no bird equal to the common English Sparrow for a house pet, not even the Canary. You may tame a Canary, but it is never safe to let it out of doors, for while some



will return, yet, as a general thing, they don't seem to know very much about it, and keep hopping here and there till they soon lose themselves: but a tame Sparrow knows the way home every time, and especially at meal time, which, with them, is after the English fashion five or six times a day.

I remember, when a boy, catching a full grown female in a brick trap, taking it home, and as I had no cage, we gave it the liberty of the house;



TREE SPARROW

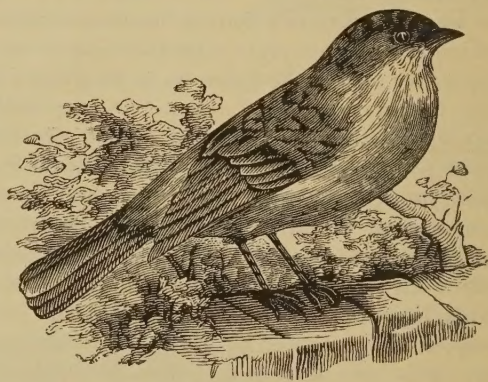
this was late in the fall, and the bird appreciated its comfortable quarters, and at once made itself at home. Our boarder soon became a great favorite with us, and learned very readily to come from any part of the house when called for; mother used to call her by some pet name, I always whistled, and the little birdie understood either summons and promptly made her appearance. She had her regular place on the edge of the table at meal times, and would keep up a lively chirping until her food was placed before her on a little toy plate, and when that was all gone would loudly call for more.

This pet staid with us all winter, and though often let out of doors, invariably came back again without any looking after. In the spring, however, she went off, as we supposed for good, and it certainly was a surprise to us in the fall to see her ladyship return with two or three young birds and a fine male sparrow, with glossy black breast and haughty air. She tried hard to coax him into the house, and we did all we could to help her, but he was too much for us, and after hanging round outside for a day or two, was finally lost in the crowd of Sparrows that were always trooping about; the young birds we had not tried to save, so they, too, went with the crowd.

But our old pet staid with us that winter, and after a few days training resumed her old habits and cunning little ways. As the breeding season approached she was gone again for the summer, but not far, for she came daily to be fed, and at the close of the summer took up

her abode with us again for the third winter. I suppose this happy association might have lasted for years had not our little pet been accidentally killed before another spring time dawned.

Right over my studio in the city, the cornice is a regular nesting place for the Sparrows, and I feel myself among old familiar friends, and am ready to help them when opportunity offers. A few years ago, the winter was very severe, and several of the hardy little birds suffered; one that we picked up from the sidewalk was chilled through, though still alive. I took it home, wrapped it in flannel, as farmers sometimes do with early spring chicks; in a little while we heard the well know chirp, chirping. On removing the cover there sat the little fellow looking quite bright, and although not yet able to stand on his feet, he was ready for a good square meal. From that time he was at home with us, and became such a familiar pet that my wife began to think him a nuisance; so, on Christmas day, being warm and sunny and quite a number of Sparrows in the street, we thought it a good time to let him go. The window was opened, and Dickie set down outside the sill; but he wouldn't go, and when we attempted to drive him out, he dodged past us into the room again, and perched high up on one of the picture frames, nor would he come down till the window was closed again. A few weeks later another Sparrow was picked up on the sidewalk, that by some mishap had broken its wing. This unfortunate one was also taken



HEDGE SPARROW.

home to be company for Dick. He took to the new comer very graciously, and did his best to make it feel at home by bringing it all sorts of scraps to eat, and even feeding it from his own bill, just as the parent birds may be seen feeding their young. Dickie also took great pains to show the stranger all over the floor of the rooms, chirping the while in the most encouraging tones.

In the summer, while living in the country, I took two young Sparrows home. Like a good many young birds, they had fallen from the nest



in the cornice to the sidewalk and were unable to fly back again. They were so young we had to feed them with a quill, (their food was plain crackers soaked in milk,) and at night they were stowed away in a wooden canary cage. From the second or third day they learned to go to the cage at dusk as regularly as hens go to roost. Like the Sparrows of my boyhood, they soon became very tame and intelligent, so that we could let them out into the orchard and call them back at any time. I remember our pastor calling to see us one day, and during our conversation, he said, "where are those English Sparrows I've heard so much about; I have looked all round and see nothing but an empty cage there in the corner." "Oh," said my wife, "that is their bedroom only, we keep them out in the orchard daytimes. If you would like to see them I will call them in." "Indeed," said he, "I would like to see an English Sparrow very much." Wife at once took a small white cup plate with some crackers broken on it, and going into the orchard we listened for their peculiar chirp, placed ourselves under the apple tree where they were, the little plate was held up, and at the sound of our familiar voices the two Sparrows flew down and perched on our shoulders, from whence they were taken in the hand and exhibited to our visitor. "Well," said he "that is the prettiest piece of bird taming I ever heard of." The English Robin and the Sparrow are equally well adapted for house pets, and both can be kept in cages, for we have kept them so, and they may be allowed the run of the house, providing there are no sly cats around. The Sparrow when kept in the house undergoes a remarkable change, from a rough rowdy looking bird to a neat, clean and handsome fellow. Regular baths, good food and a clean cage tells materially on the appearance of the hardy little waif.

ARTIST.

#### THE THUNBERGIA.

Why is it that the Thunbergia is not cultivated more extensively than it is? It is an exceedingly ornamental, free flowering, climbing plant, and is, when properly treated, of rapid growth. Its foliage is quite handsome, and if managed as it should be, it is an exceedingly useful plant. The objections to its cultivation are these: it requires heat to start it, is of slow growth, and it is also subject to the red spider. These difficulties, however serious they may seem to be, are, upon examination, found to be most easily remedied, and as the Thunbergia is one of my favorite plants I propose, with your permission, to give my experience with it. The first objection that it requires heat to start it is

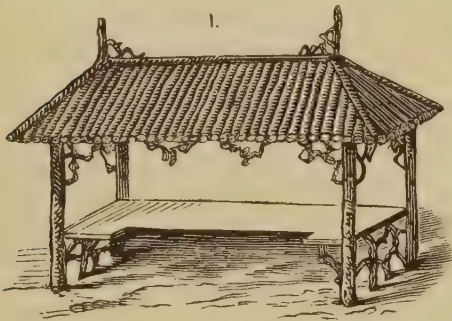
of no account; the finest plants I have ever seen were raised from seed sown in the open ground on the sixth of May. Care was taken to have strings or wires ready for them to run on as soon as they commenced to grow. For those who intend to follow this mode of cultivation, the best plan would be to form a circle about two feet in diameter where the plants are to stand. This circle should be dug to the depth of two feet, at the same time working in a quantity of well rotted manure. Early in May sow about a dozen seeds in the center of the circle, taking care not to cover them too deep, also take care to set the eye of the seeds downward, place a hand-glass over them, and let it remain until the plants commence to run, when a trellis should be provided, so that they can be trained to their proper places at once. If this should be neglected, the plants will be apt to be severely injured and will not soon recover. As soon as the seedling plants become strong, remove all but three of the best; nothing will be gained by leaving many plants in one place. If the plants are carefully removed, they can be planted to a balloon or other shaped trellis. If the trellis is not over five feet high, do not work in so much manure, but substitute about half a bushel of lime rubbish; this will cause immense masses of flowers to be thrown up, and the plants will not grow so rapidly. By the former method of cultivation the plants will grow over twelve feet high, and they will flower very well. For those who have the convenience of a hot-bed the seed can be sown at the North about the first of April. When strong enough, pot off into five inch pots, using ordinary potting soil, pinch off the tops, if necessary, and plant out when all danger of frost is over. The seeds can also be sown later in a cold-frame. If the red spider makes its appearance on the plants, syringe or sprinkle them thoroughly with water every evening until the insects are destroyed. If sulphur be added to the water in the proportion of two tablespoonfuls to a gallon of water, it will destroy the insects sooner. The Thunbergia is by some recommended as an excellent basket plant; but as we have so many other climbing plants that are not so subject to the red spider, I would not advise its use for that purpose. In some catalogues the Thunbergia is said to grow to the height of four feet, and in others eight to ten feet, and, strange as it may seem, both are right. If grown in a rich, deep soil, it will grow from eight to twelve feet high; and if in a poor, shallow soil, it will only grow about four or five feet. The best and most distinct varieties are *T. alata*, buff, with a dark eye; *T. alata alba*, white, with a dark eye; *T. alata aurantiaca*, bright orange, dark eye; *T. alata Bakerii*, pure



white; and *T. alata Freyerii*, sulphur colored. *T. alata intus alba* has proved to be the same as *T. alata Bakerii* with me. *T. fragrans*, a beautiful variety with white, sweet scented flowers, is a native of the East Indies, from which country it was introduced in 1796; it is a hot-house variety, but is best grown outside, in the same manner as *T. alata* and its varieties. *T. coccinea*, red, *T. grandiflora*, blue, *T. Chrysops*, blue violet, and *T. Harrisii*, porcelain blue, are superb hot-house varieties. I have often endeavored to obtain seeds or plants of them without success. Why are they not more extensively cultivated? It would be to the interest of some one to introduce seeds of them; they are far more worthy of attention than many of the so called novelties. *T. alata* and its varieties are sometimes allowed to run over beds which they soon cover, and flower very well. Grown in this way they are much admired by some, but to me they look far prettier when growing on a trellis.—C. E. P., *Queens, L. I.*

#### RUSTIC WORK.

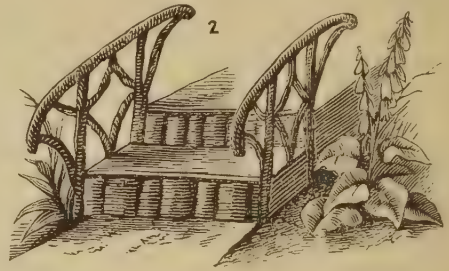
MR. VICK:—Last summer I paid a visit to Central Park, New York, and was very much interested with the rustic arbors, seats, and summer houses; more so, indeed, than with the elegant masonry to be seen in the fine arches, stairways and promenades, because the rustic work comes more within my own reach and



comprehension, and the result is, I send you some sketches of what I propose to do this winter. These drawings are not copies of anything in the park, but rather suggested by what I saw there; so, of course, I take the liberty to call them original, and if you think them worth publishing, they may serve some of your readers as helps in this line.

No. 1 is a family garden seat, about six feet by ten, the back and roof of boards one inch thick, the roof then covered with straight sticks two or three inches in diameter, or it may be shingled with bark. The rests for the seats and the brackets at the top of the posts are of twisted roots or branches, which may easily be picked up in the woods.

No. 2. A design for steps; just the thing for the foot of the walk leading to our spring. The steps are made of pieces of logs, seven inches



high, set on end, and a strip of pine board nailed on top; the bark may be left on the blocks, and I know it will look nobby.

No. 3. A summer house; this will tax my ingenuity most, but with the help of a neighbor,



who is a carpenter, and a great friend of mine, I think I can safely tackle it. Him and I have talked the matter over, and he is ready to advise or help me when needed. The house will be about eight feet in diameter, with a frame of scantling, upon which to nail the rustic work.



No. 4. Sketch of a window garden shelf, made last year. A shelf of pine, one inch thick, three feet long, eight inches wide; corner posts about one and a half inches thick, the cross bar and pickets are made of pieces of twigs, half an inch thick. I did think to make a miniature snake fence all around, but wife objected,



because the projecting ends of the rails would always be catching our clothes, so I made a picket fence instead, and it looks very pretty, especially when a branch of Ivy is allowed to



twine around it. I send also a sketch of a rustic chair that I met with somewhere; it is made of a species of willow, is neat, firm and well suited for the garden or verandah.—J. S. M., *Attica, N. Y.*

#### CLUMP OF AURATUM LILIES.

MR. VICK:—I write you in regard to my Auratum Lily. In the spring of 1872 I procured of you one bulb. The first year it grew well and had upon it two or three blossoms; every year since it has continued to increase until it has become quite a wonder. Last year it sent up six or seven flower stems, two of which reached the height of seven feet by actual measurement. Upon these stems there were over ninety blossoms all in bloom at one time, forming a mass of bloom from five to six feet in diameter, lasting from a week to ten days, and perfuming the whole neighborhood. It has become quite celebrated, and is annually visited by nearly all lovers of flowers in this locality. It has not been disturbed since first set out, except to remove the new bulbs that form too near the surface of the ground to do well. Each year I remove the dirt so far as convenient around the bulbs, and fill in some good manure, then cover it all over nice, and after the flower stems are three or four feet high I throw around between them some two or three inches more of good dirt. When about to bloom I fasten each flower stem to a stake, in such position as to prevent the flowers rubbing together when moved by the wind. This is the finest Auratum I have ever seen; it must be due to the superiority of your bulbs. I hope all your customers will try an Auratum. When once planted they are no more trouble to raise than common Timothy Grass, and when in bloom surpass everything in the line of flowers. I think this Auratum excels any other, or all others, that you have given us any account of, if not, please report.—S. Y., *Delhi, N. Y.*

#### AURATUM LILY IN ENGLAND.

MR. VICK:—In your MAGAZINE for October, a correspondent spoke of a three year old Auratum Lily having six blossoms. This statement prompts me to mention an instance of what I should call unparalleled success in Auratum Lily raising. Messrs. W. BARRON & SON, of Elvaston Nurseries, near here, have some very fine grounds, and a few weeks since, one Saturday afternoon, desiring to spend an hour among the flowers, I went in company with one of my children, to the nurseries referred to. After entering the grounds my attention was attracted by the fragrance from a large spike of white flowers in the distance. Curious to know what it could be, I went up to it, and judge of my surprise when I found it to be an Auratum. I tried to count the flowers, but they were so compact that it seemed almost an impossibility. I counted fifty perfect blooms, and when, a few minutes later, I was seated with Mr. BARRON, at his tea table, I asked in reference to this Lily, and he informed me that the blooms numbered fifty eight. "But," said he, "that isn't as good as I shall have in a week or so," and then he spoke of his experiments with the Auratum, and told me that he had succeeded in producing an improvement on the old flower. As they were not then in bloom I could not see them, but he subsequently informed me that on one stem there were sixty-eight blooms. How is that, sir, for success? The bulb first mentioned is about seven years old, and the latter one about four or five years.—J. HALL, *Derby, England.*

#### ZINC FLOWER POTS.

I have noticed in your MAGAZINE inquiries about zinc and iron flower pots. I will, therefore, say I have used zinc pots for the last twelve years, and found them much superior to earthen pots. I make them myself, of all sizes, from three inch up to ten inch. I raise much finer plants in them than in any others, and in the summer they save a great deal of labor in watering. In the hot weather earthen pots require watering twice a day, while zinc ones only need it two or three times a week. In making them I first thought that I was the inventor of them, but afterwards, in an old English Gardening Magazine for the year 1860 I found an answer to a correspondent in which the editor says he had used zinc pots for years, and found them of great advantage. So I was ready to say with SOLOMON, "there is nothing new under the sun." Though I question whether he ever saw zinc flower pots or steam engines.—THOS. LUFFIN, *South Newton, New Zealand.*



## FLOWERS OF ITALY.

MR. VICK:—I am familiar with many of the wild flowers from the mountains, and thought a few notes might be interesting to your readers. The Ferns are pretty, but not prettier than American Ferns. Camellias, Cape Jasmine, Oleanders, and other flowering shrubs live out and blossom during the winter and early spring. Aloes grow wild and contribute much to the beauty of the landscape by the sea and upon the rocks. Century Plants are abundant, and often blossom when they are the size of our ordinary ones in the parks. Camphor, Cinnamon, Cork, Vanilla, Pepper, and other trees are in the garden of "Villa Pallavicini," at Pegli, the Long Branch of Italy, six or seven miles from Genoa. I enclose a piece of variegated Cedar; it grows in compact little trees, and is used to border walks. It came from Albero, near Byron's home while there. The Camphor leaf is from Pegli; the Heather is from the Appenines, and with those leaves whose reverse side is brown and white, that is a beautiful shrub. They have at Pegli six or seven acres of Camellias. The whole garden covers one side of a mountain, and is most delightfully situated, commanding a view of the sea and Genoa. The trees these Peppers grow upon are ornamental. Canterbury Bells, Sweet Williams, Daisies, (pink, white and purple,) Heather, &c., bloom upon the mountains. In the spring they have large bunches of tiny white, fragrant bells, which will last, without fading, two weeks, fill a room with fragrance—all for two cents. In the season of them, Tea Roses are in perfection. I am told, however, that they do not equal those of Nice—eighty miles below us.—MRS. H. E. HAZELTON, *Genoa, Italy.*

## LILIUM SUPERBUM.

MR. VICK:—I am in the habit of paying a visit to Portland, Maine, during the summer months, and, traveling as I usually do, with my eyes open, I notice, as well as one can notice, such things while being whirled along at the rate of thirty or forty miles an hour, the general features of the country through which I pass, together with any conspicuous specimens of the *Flora* that from their size or beauty are most likely to attract one's attention. The scenery, more especially in the vicinity of the White Mountains, is really beautiful, exceptionally so as viewed from a railway carriage, and quite refreshing to the eyes of a Canadian residing in a section of the country where a slight eminence constitutes the height of land.

On either side the railroad track, between Island Pond and Portland, one scarcely ever loses sight of water—either a small lake, or a

river, or a streamlet. On the margins of the latter I constantly notice a Lily, a specimen of which I have long desired to become possessed. The flowers are very showy, of an orange color, nodding, and bell-shaped, and I have seen as many as eight on one stem. The leaves are whorled, as many as twelve constituting one whorl. I am not sure as to the name of this plant, but think it may be the Turk's Cap Lily, *Lilium superbum*. Perhaps you can enlighten me on the subject in the next number of your MAGAZINE. Would it be possible for you to procure for me and send me some bulbs? I have a tame swamp in my garden in which I grow several wild plants.—V. C., *Peterboro, Ontario.*

Our correspondent is, no doubt, quite right in supposing the Lily to be *L. superbum*. This species and *L. Canadense* are to be found in the region mentioned, and as far North as New Brunswick. The bulbs of both are to be obtained of any seedsman or nurseryman, and not only do well in our gardens, but are improved by cultivation, both in color and the number of flowers. Price about 25 cents each.

## ABOUT ROSES.

MR. VICK:—I have a number of hardy Monthly Roses, La France, La Reine, Beauty of Waltham, Madam Charles Wood, May Turner and others, all fine Roses; but none that, for real worth and profusion of bloom, can compare with my old favorite, Hermosa. My Hermosa is about seven years old. Last spring I divided the plant, taking off about one-third of it to plant at the grave of our loved and only daughter, who, a short time before, had gone from our happy little home on earth to dwell in the brighter one above. The part which I set at the grave I cut back within three or four inches of the ground. The dry spring time and summer were severe on it, but it recovered, and before the coming of the first hard frost had borne seventy-one lovely, perfect flowers. The main plant throughout the season bore five hundred and thirty-six roses. I do not cut back my plants in the fall. On the approach of very cold weather, usually about the last of December, I protect them by laying the branches flat on the ground, placing a stone on the end of each stiff branch to hold it down, then cover to the depth of three or four inches with fine, light soil; over that lay boards to keep dry, giving myself no further care concerning them till the following spring. Then I uncover gradually, and give to each a liberal supply of well decayed stable manure.—MRS. E. T. ALYEA, *Sunman, Ind.*

FROM QUEENSLAND.—Vick's Magazine is a gem, and its circulation will increase the taste for flower culture here.—*Queensland Agriculturist.*





ABRONIA UMBELLATA.

## THE ABRONIA.

In the March number of the MAGAZINE, last year, I was pleased to see a description of the Abronia, and also to find that it grew so freely from self-sown seed in the east, as described by a correspondent. I had heard that it was grown with difficulty on the Atlantic coast, but think the difficulty has been too much petting and nursing. A correspondent to whom I sent seeds writes me that she thought the sun was too severe, and that it needed shade. I think this can be hardly so, for here it grows on almost barren sands, exposed to the full blaze of the sun from morn to eve. The yellow variety, particularly, I find on banks of clean sea sand, not twenty feet from the high-water mark, and the branches are covered with a sandy-like substance; indeed, seemed almost to be formed of sand, as if the particles were held together by glue or some similar matter. I will send you some branches, so that you may be able to

fornia flower, the Spraguea? If not, I would recommend it to your readers.—W. T., *Stockton, Cal.*

The *Abronia umbellata* we have long cultivated, though we never saw it in California. The *A. arenaria* we saw in abundance, and have specimens that we gathered from the sandy hillocks near the Cliff House, within a few feet of the sea. We also grow the Spraguea. This we saw in abundance near the Nevada and Vernal Falls, where it was kept moist all summer by the spray from the falls. From this fact we judged that it flourished best in a moist situation. The plant is very pretty, as well as the flowers, dries well, and retains its color, which is pinkish.

## AUSTRALIAN LETTER.

MR. VICK:—Thinking a few words from this country beyond the sea might be interesting, I drop you a line, as Isack Walton said to the trout. Horti—or flori—culturally there is little to communicate in the shape of novelty. A fine season promises, and already sheaves of beautiful flowers are being gathered. The great rage here seems to be for varied foliage, as much as beauty of flower. The Fuchsia produces some very pretty varieties of tone, in the leaf, the Winkle and the Hoyas generally. Another pet growth is the Sedum, small miniature plants; but, of course, your climate is so different to ours that our horticulture must, perforce, differ materially. *Apropos* of the garden and greenhouse, I was much pleased with the English poet Cowper's description of the labors of the producers of flowers and exotics. As I believe its reading would be attended with interest and even benefit, and it being too long for transcription, I will merely indicate where it may



SPRAGUEA FLOWER AND PLANT.

tell your subscribers how the Abronia grows in California; for I judge it is much more robust here than when grown in "the States," as people here speak of the east.

Do you cultivate a beautiful everlasting Cali-



be found in your literary institute: Cowper, Vol. II., "The Task," book iii., stanza 9, and I commend the reading of it to all who love a garden. Our religionists, too, who lose no opportunity of dressing religion in its most pleasant and attractive garb, give what are termed "floral services," the church or other place of worship being garlanded with flowers; and I need not point out the numerous texts of scripture on which highly appropriate discourses may be based and improved on. In our funeral ceremonies, especially for the young, fresh flowers form a very noticeable feature, and many a blooming, well cared for parterre in our cemetery tells of affectionate relicts, and that the dear ones "though lost to sight" are still "to memory dear."

Ferns are coming into popularity, but as they are very generally plants of "free selection," it will require years before we shall be a great success in producing them, save in their natural and nomadic condition in some wild, almost inaccessible gully or ravine.—S. W. V., *Sandhurst, Victoria, Australia.*

#### BLUE FLOWERS.

MR. EDITOR:—I need not inform you that our gardens do not abound in blue flowers, and that, in fact, it is possible to pass through several well-kept gardens without even seeing one bright, true blue flower. I don't wonder



florists and the rest of the people have been talking so long about a blue Rose and a blue Dahlia, something, I suppose, that we shall never see. There is one class of blue flowers

that I think should be introduced into every garden. On passing by a place in the suburbs of Troy, N. Y., last summer, I noticed a mass of blue that almost startled me, so I sought the cause when I reached a bed of flowers of the most intense blue—nothing could be bluer, and this color was presented by a clump of Delphinium. There were several varieties, but none better than *Delphinium formosum*, though a variety labeled *caelestinum* bore flowers of a lighter color. Do tell all your readers to obtain plants or seeds of the Delphinium. They are perfectly hardy, and once planted and given half-way decent treatment, will continue to flower, I guess, forever. I have had the Delphinium in my garden for twenty years, but I never realized their value in the garden before. I think the eye was tired of yellow and red, and hungered for a soothing, resting blue.

I sow seeds of Delphinium in May or June, and in one year flower buds appear and continue for a long time. Florists, I believe, sell plants in the spring and autumn, but I have always grown them from seed.—G. W. T.

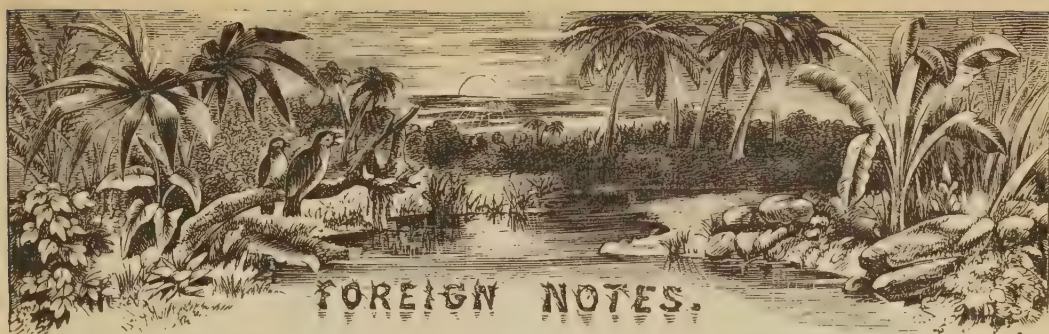
#### CLUSTERED TULIPS.

MR. JAMES VICK:—Some six or eight years since I bought some very fine Tulip roots of several varieties, one a double violet with white border. In a year or two after I got them two of the bulbs produced two and three fine blooms from one stalk, the stalks branching off just below the bloom. I saved the two bulbs from year to year and planted them separate, and had increased them to half a dozen bulbs. Last season, after taking them up, I neglected them and did not get them in until spring, and consequently they became rotten and I lost them. Now, what I wish to know is this, are they common, and can I get some more? I have never seen any mentioned in catalogues, and of numbers of persons to whom I have showed them, none have ever seen any like them. I fear I have lost them for good. I have some bulbs saved from those which, I hope, may become fasciated.—J. C. N., *Springfield, W. Va.*

Several varieties of Tulips, particularly the strong-growing sorts that have tall flower-stems, sometimes give extra flowers, more or less perfect, on the flowering stem, as described by our correspondent; the double sorts more frequently than the single. Being a sport, no bulbs can be obtained that would be sure to produce the desired result.

ITALIAN ONIONS IN MISSOURI.—A number of my Giant Rocca Onions weighed two pounds each—the largest Onions ever seen here. From one pound of Weathersfield Red Onion seed I grew more than 100 bushels.—M. H., *Missouri.*





### THE WILD GARDEN.

There is beauty everywhere, in the highly cultivated garden, with its formal beds of Geraniums and foliage plants; in the wild woods, never marred by the hand of man, and in the rugged mountains and wonderful canyons of our Pacific coast. We shall never forget the pleasure we once enjoyed among the wild flowers of the Oak openings of Michigan, when once delayed by an accident to a railroad train in the neighborhood of Dowagiac, Michigan, and words would fail to express our feelings when wandering over the mountains and foot hills, and through the valleys of Colorado and California.

There is a love of Nature in every one, hence we leave our pleasant homes in summer, and

was quite possible to have a little of this wild beauty about our homes, and our English friends have not only thought well on this subject, but have put their thoughts into practice, and made what is known as *Wild Gardens*. In the thin woods and copses, which are merely thickets of hazel and other bushes, with an occasional large tree, they sow, or rather scatter, quantities of hardy flower seeds, and plant a few perennial roots that keep these Eden spots gay with flowers all summer.

About most of our farms there are thin woods or waste ground, that could be made delightful by a little labor and a very trifling expense. A few seeds of hardy Annuals, such as Candytuft, Petunia, Clarkia, Zinnia, Poppy, and Perennials, —any kind that will re-produce themselves from



WHITE JAPAN ANEMONE IN WILD GARDEN.

camp out in the woods, and engage lodgings in country places, and on the borders of our lakes, among the trees and flowers and flowing waters, and enjoy, for a season, Nature in its beauty and simplicity. We have often thought that it

self-sown seed, or by spreading from the root may be used. Mixed collections for the purpose are prepared and sold at very low rates by European seedsman. Perhaps not one in ten of the seeds sown produces a plant, but





SCENE IN WILD GARDEN, AT WIEYBRIDGE, ENGLAND.

some sown among the bushes, or along the paths are sure to find a suitable location and live and bloom. A few Perennial sorts may also be planted, even wild flowers from the neighborhood will be acceptable. The White Japan Anemone, the Tritoma, and some of our Perennial Phloxes and Lilies would be admirable for this work. What a delightful retreat such a shady spot would be in a warm summer's day, one we would hardly be willing to leave for any fashionable summer resort. For the purpose of giving our readers a correct idea of the Wild Gardens of Europe, we copy two views from "*The Garden*," of England.

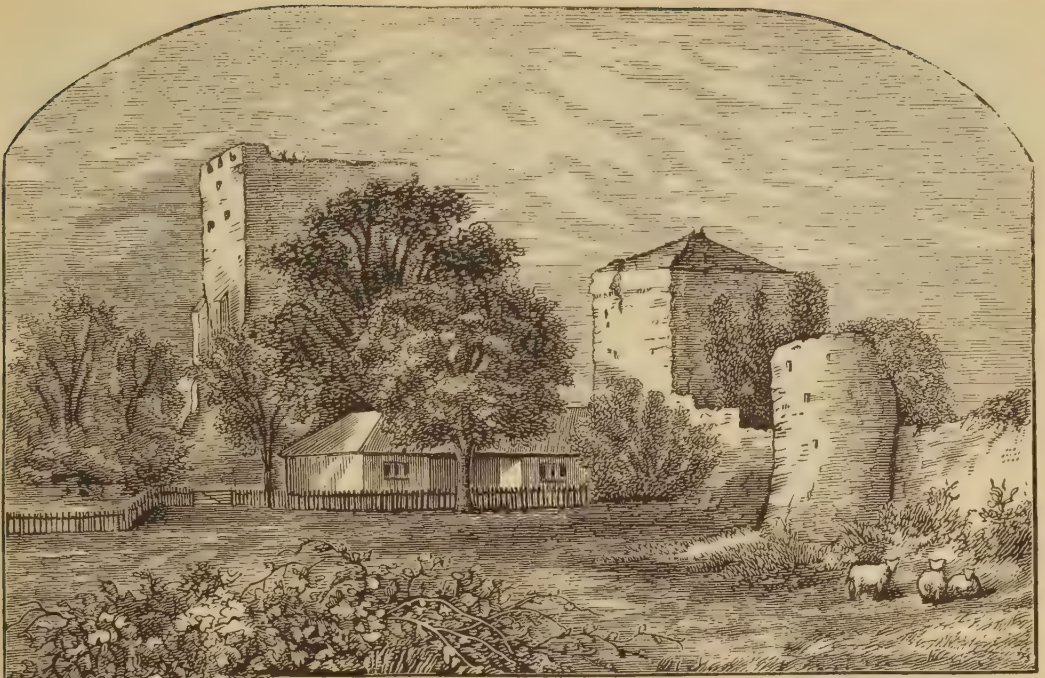
**CHRYSANTHEMUM SHOWS.** — The foreign journals are describing the Chrysanthemum Shows, which are held in November, and are this year unusually fine.

#### THE CATALPA.

In reference to the hardy Catalpa, *C. speciosa*, which now finds so much favor in this country, the *London Garden* says: "One of the few trees that do thoroughly well in London is the common Catalpa. Even in crowded parts of the city handsome trees may be seen flowering profusely, and they retain their foliage a long time, very late in the autumn, notwithstanding the dense smoke and dust of the streets."

**SEED FUND FOR IRISH FARMERS.** — The *Irish Farmer's Gazette* appeals for contributions to a seed fund to be raised for small land holders in the poorer parts of Ireland. In many cases it is feared the people will not have seed Potatoes for next year, and even if a portion is saved, it is desirable that better sorts should be introduced than those usually cultivated.





### PORCHESTER CASTLE.

We shall long remember a visit made to a celebrated ruin, an old Roman fort, called Porchester Castle. We had been spending a week or two in the south of England, at Portsmouth, Southampton, the Isle of Wight, &c., when a friend invited us to take a ride to that old castle, about seven miles from Portsmouth. The day was pleasant, unusually bright for the English climate, with something of the mellowness and quiet common to our Indian summer weather. Here, for the first time for many years, we saw the skylark arise from the meadow and soar aloft, as direct and almost as swift as an arrow, and loading the air with most delicious music. After a pleasant ride of an hour or so, we reached Porchester, a little village, and soon made our way to the castle, which was first a Roman, then a Norman, and at last an English fortress. The old tower and broken walls, as shown in the engraving above, were ablaze with Wallflowers, while the old ruin was festooned with Ivy. We visited the Norman Court, the Citadel, Banqueting Hall, Queen Elizabeth's and other towers, but the great Saxon Tower is the chief attraction, which we ascended with difficulty, on account of the worn and broken condition of the stairs. More than six inches had the feet of those who had traversed these steps for ages worn into the solid stone.

Our first thought on reaching the village was that we had never seen a place in which so many common garden flowers were grown.

Every little garden was ablaze with Pansies, Phloxes, Carnations, &c. While in larger places flowers were grown by the acre. We were not long in ascertaining the cause. The place is visited by crowds of people from the neighboring cities on fine days, and it is the fashion to take home a nosegay, and these are made up with considerable taste, and sold at about twelve cents each, while any surplus is easily disposed of for cut flowers at Portsmouth. The leading florist of the place is Mr. MARTELL, with whom we spent a pleasant half hour among the roses and pansies and pinks. We were reminded of our visit to this place by a recent account published in the *Journal of Horticulture*, by its well known correspondent, a WILTSHIRE RECTOR, and concluded to give our readers a little sketch of the old castle and grounds from a drawing which we obtained at the place, and have preserved for several years.

### WINTER TOMATOES.

It was very cheerful the other day at Kensington to see the beautiful color of the Tomatoes, which, however, appeal most to the epicure. Mr. Gilbert, of Burghley, assures us that the best Tomato for winter work is Vick's Criterion, a smooth, round sort, with a slightly crimson hue. It holds its flowers well above the foliage in winter, and sets very freely at that season.—*The Garden*.



### ADAPTING MEANS TO ENDS.

The gardener has abundant opportunity for the exercise of ingenuity and originality, and unless possessed of these sterling qualities he may often cut a sorry figure. The failure of a stock of plants, the occurrence of some unforeseen event, or a change of plans from any cause, will often demand the most skillful treatment by the gardener, who in any event will make his grounds presentable. This capacity to cut the coat according to the cloth is finely illustrated in the following statement made by KITCHENER in the *Journal of Horticulture*:

Bad seasons, bad harvests, and but little rent make a gardener's situation on large landed estates anything but pleasant; still I fully believe there are some beneficial results. It tends to awaken us to use economy; and if there is any scheming or generalship among gardeners these are the times to bring it out. I have here under my charge a very large flower garden, which required from five to six thousand Geraniums to fill it. This season I was instructed not to bed this site out at all unless I could make it both ornamental and at the same time profitable. Not liking the idea of a bare border all the summer I ordered three pounds of Beet seed, known as the Pine Apple, drilling it in rows at one foot apart. The seedlings came up well, were duly thinned and kept clean. A yellow Viola was planted around the edges of the bed. Just now when all other beds are bare this border is simply beautiful, and will last until affected by frost. I calculate the Beets will be worth 1s. per dozen, and at that price I shall realise, if only one-half is marketable, the respectable sum of 6 pounds sterling. In conclusion I may say practice makes perfect. If I had dotted in a few clumps along the centers of the beds of Ribbon Grass it would have been a great improvement: however, next season I will, if spared, introduce the grass above mentioned.

### THE BLUE BROWALLIA.

This pretty Peruvian annual is an important plant in the Slough nurseries for furnishing cut flowers throught the autumn and winter months. Blue flowers being then scarce, this is a capital plant for supplying them, as it is free as regards growth, easily grown, and flowers continuously. It is also equally well adapted for pot culture, and for border decoration in summer. — *The Garden*.

FANCY FLOWER BEDS. — A correspondent writing from Nice to one of the English journals, speaks of the English flower beds as "exquisite geometrical designs of variegated eels, tri-colored worms, and glowing tadpoles."

### FLOWERS FOR PERSONAL ADORNMENT.

A lady friend ornamented her very bewitching caps with carefully dried everlasting flowers of pink, white and yellow Rhodanthes and Helichrysums. They are gathered when fully blown on a fine day, and are carefully dried in a warm room. They are of course far more delicate and pretty than any artificial flowers.

The mention of artificial flowers reminds us of an anecdote which I heard last week. A lady at a dinner party wore a breast knot of artificial Roses. In the interval before dinner, when the children were present in the drawing room, a little girl was attracted by the flowers, and, after examining them, exclaimed, "Why, your Roses don't smell sweet like papa's! They are only rag!"

### SEEDLING MUSHROOMS.

We have alluded to the discussions that have taken place as to the possibility of raising Mushrooms from seed, or, to speak more accurately, from spores. It is not difficult to cause Mushrooms to germinate on a plate of glass, if moisture and a sufficiently high temperature be available. Dr. LA BORDETTE, by feeding the young plants with a solution of nitrate of potash, succeeded in growing Mushrooms of large size. M. CHAROLLOIS, it appears; has lately presented the Horticultural Society of Paris a basket of Mushrooms produced as follows:—The spores were sown on a plate of glass kept constantly moist and dusted over with spent dung. Spawn was produced, which was transferred to the beds in the ordinary way.—*Gardeners' Chronicle*.

### FLOWER GIRLS OF PARIS.

The flower girls on the Boulevards of Paris—who are not numerous—have an odd way of disposing of their simple bouquets. They suddenly present themselves before ladies or gentlemen likely to buy—the English and Americans having their chief attention—making a curtsy and with a "Pardon, Madame," or "Monsieur," they insert their bouquet in dress or coat, and retreat. Making a short detour they present themselves with another bow for payment. To refuse the moderate sum demanded or return the bouquet under such circumstances would be out of the question.

DOUBLE COWSLIPS. — A double form of the common Cowslip of the field is attracting a good deal of attention in England. A good many years ago there was an old variety called Hose-in-Hose.

FRUIT IN LONDON MARKET. — American Apples were selling in London at \$5.50 to \$7.50 per barrel at last reports, and Tomatoes 50 cents per dozen.



## PLEASANT GOSSIP.

### NATIVE CLIMBERS.

Nature, like the true artist, is never quite satisfied with naked walls and unadorned corners. Even the wayside stone bears on its surface the most delicate of lichen etchings, and in all the forest there is scarcely a tree but wears some drapery of moss or vine. From the most neglected corner of the tumble-down rail-fence we find gorgeous banners flaunting themselves in the eyes of every passer, and without a semblance of maiden coyness yielding themselves to the embrace of every zephyr.

Perhaps there is scarcely any feature of nature which appeals more to our hearts than this tenderness of hers; this lovingness with which she clasps the roughest objects to her bosom and binds them fast with cords of living green, until they lose their unseemliness, and are a part of one perfect whole.

In these latter days, when walking bids fair to become one of the fine arts, what opportunities we may have to look after this dear mother of ours, and comfort ourselves with her methods of beauty and grace; for she is always beautiful, and never ungraceful, perhaps because she has "all out doors" for her housekeeping, and will not be hurried in her undertakings. Then, too, she understands the trifles that make perfection, and so reaches the perfection that is no trifle.

We read of the skies of Italy—the purple vintage of its slopes—the murmur of its flowing rivers—but what skies can be bluer than those which our own June bends over us? And do we not all know some stream so translucent that on its surface we seem poised half-way between the heaven above and another heaven below, while the banks drape themselves in the graceful greenery of the wild grape, whose clusters of fragrant blossoms fill the air with delicious sweetness, and whose branches dipping into the water beneath form, with their luxuriant broad-leaved foliage, an arbor worthy the trysting-place of ancient Faunus and Naiad, or modern Lover and Maid! Going up the same stream in October, we find all things changed "into something

rare and strange," for the hand of autumn has the Midas touch which transforms into gold. The vine, though partly shorn of its beauty, and with its fruit withered into still purple raisins, lets fall the sunlight in bright patches on the darkened water beneath; and what sunlight is half so lovely as that of October, which, though it may lack the brightness of spring, brings a calm fulfillment of summer's most gracious promise? What need to go four thousand miles to see Italy when more than Italy awaits us at our own door! And we may find on every river-bank and hillside grapes, which, though not the grapes of Eschol, cannot fail to give us



CLEMATIS VIRGINIANA.

the wine of a new life even as we gather them!

Nature is full of atonements. All summer long the Cedars and Pines stand gloomy and dark, with none of the fluctuant curves and graceful drooping branches with which the other trees drape themselves, while the only contrast amid their dark foliage is an occasional glimpse of lighter green; but with October comes a change. Each tree disrobes itself after its own manner. The Maples shed their leaves in "one tempestuous scarlet rain. The yellow Beeches detach theirs more slowly and with an almost audible effort; while the Oaks, with the dignity of those accustomed to change, drop



theirs with scarcely a rustle, until finally we have left only graceful outlines and clinging birds' nests—"those leaves that do not fall, to give us happy memories of summer hours," Then Pines and Cedars develop a new individuality—dark and somber still, but clear cut as any granite obelisk they stand against the pale autumnal sky; while above, around, and woven through their pointed tops is the Bittersweet vine, its light-green foliage all gone, but its scarlet and yellow berries brightening all the dark outlines with their vividness of coloring, like floods of living sunlight—the common wayside tree transformed as by a miracle into the burning bush from which a God might speak.

The Bittersweet by no means confines her attentions to the Cedar, though she is never quite so effective elsewhere, but has a way of haunting old stone walls and straggling along lonely



AMPELOPSIS QUINQUEFOLIA.

country roads; she is a wayside miss on whom no dependence can be placed, as she will sometimes astonish us with a wonderful luxuriance of growth all summer, and then send us away in autumn with the merest spray of berries to brighten our winter parlors, while again, with much less ado, she will load us down with long branches of her brilliant fruit, that, woven into wreaths, fasten the glory of autumn on our walls until spring comes again.

Much more certain, though much more shy, is that dear old vine, Clematis, with its snowy cloud of bloom late in summer, when the white blossoms so plentiful in the early year, have nearly all given place to the reds, yellows and purples that make gay our summer landscapes. A rambling denizen of the woods, delighting in obscure fence corners, struggling up through piles of brush, shunning the society of man, but loving his tender neglect—beautiful when in bloom, it is still more lovely when covered in the fall with its silvery-tufted fruit (from which

has arisen its quaint name of "Old Man's Beard,") shining in the sunlight as it sways to and fro in the autumn winds. Every boy and girl who knows aught of wood-lore can tell where it grows, and I think there is hardly a plant that inhabits our roadsides and fence corners so well known, or that brings more loving memories of early days than the trailing white blossoms of the Clematis.

But running riot over all and above all, climbing trees and fences alike, swinging green banners on every breeze all through the summer, and throwing out red ones in the autumn—running with rapid feet through stony meadows, embracing every rock and old stump—laying soft clinging hands on every wall and barren hillside, the utmost abandon and luxuriance in all our summer growth is reached by the Virginia Creeper, or the Woodbine, as it is commonly called. No soil is too poor for it—no place too lonely—all summer it hides modest flowers under its dark green glossy foliage, and few suspect the treasures it is hoarding up. One of the first change-lings of autumn, none are more gorgeous in their coloring; and for a little while it brightens and vivifies all the landscape. The scarlet and crimson of its leaves, and graceful branches, makes the brightest coloring in our October woods and fields, and, long after unkindly rains and bitter winds have scattered its ripened foliage, it holds out the treasure accumulated through the summer, its lovely bunches of crimson-stemmed purple fruit to the belated bird, and is never more attractive than when enacting this role of charity.



CLIMBING BITTERSWEET.

In all nature's deeds there is a hint of something yet to come, and though the vines sway leafless in the November winds, a watchful eye may see already formed the buds which another spring shall open into beauty, and the waiting between is only like a waiting from sunset to another sunrise.

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CYPRESS VINE.—When visiting on Long Island, last summer, in the neighborhood of Sea Cliff and Glen Cove, I was pleased to see so many beautiful pyramids of the Cypress Vine. I saw nothing prettier on my travels.—J.



## EUPATORIUM.

There are many varieties of *Eupatorium* indigenous to America, but none rival the *Eupatorium perfoliatum* in its medicinal powers. The plant which gave name to the very extensive genus, of which the Boneset is a species, are dedicated to Eupatos Mithridates, who is said to have used a species of the genus in medicine. Pursh describes twenty-seven as natives of North America; and others will be found extending beyond the tropics as far as Peru and Paraguay.

The Boneset, or Thoroughwort, is perhaps one of the most common of all the species inhabiting our country; it is found in meadows, on the margins of brooks and in damp woods. It is peculiar to North America, and easily distinguished from all other species. Many of the species are from five to seven feet high. The red-flowered species bloom with the white Boneset, and decorate our autumnal landscapes with the profusion of their red and white flowers, and by the abundance in which they are everywhere met with. These plants are all plain except the *E. caelestinum*, the beautiful blue flowers of which have given rise to the appropriate specific name; it is never found much exceeding a foot in height, but occasionally in very rich ground, rather shaded from the sun, you will find a plant a foot and a half high.

Some months ago having seen the following description of a plant in Mr. VICK's catalogue, I supposed it was something entirely new: "A Mexican flower of a brush-like appearance, not showy in the garden, but prized by florists because it bears a great many flowers and keeps in bloom a long time, and is therefore desirable for bouquet-making. It is well to start the seeds under glass, and transplant to the flowering bed." This description was headed "Ageratum." I purchased the seed, and to my astonishment found myself the possessor of many young plants of the *E. caelestinum*. Nevertheless I scattered them around among my friends, that we might all have this wonderful Mexican flower, and in March we had some rare heads of the "Ageratum," for even an old flower seems better when known by a new name.—Miss M. E. H.

The above we find in the December number of the *Gardener's Monthly*. An old poet sang:

"A little knowledge, is a dangerous thing."

And this long ago became a proverb, but it is one in which we have no faith. It is only when the possessor of a "little knowledge" aspires to be critical that it becomes dangerous, and is apt to make its owner ridiculous. The correspondent of the *Monthly* must be wonderfully ignorant of what has been doing in the floral world during the past half century, to have sown *Ageratum Mexicanum* seed expecting to obtain from it something new; for it was obtained from Mexico nearly sixty years since, and has been common in the gardens and green-houses of the civilized world ever since. No doubt our friend MEEHAN, editor of the *Gardener's Monthly*, grew it on the shores of the Solent, as we did, fifty years ago.

To be critical, there is no such thing as *Eupatorium caelestinum*, and the writer no doubt refers to *Conoclinium caelestium*, which resembles both *Ageratum* and *Eupatorium*. The *Ageratum* truly belongs to the *Eupatorium* tribe, just as the apple belongs to the Rose family.

## OXALIS LUTEA.

In an article on the *Oxalis* in your MAGAZINE of September, 1878, page 281, you say, "*O. lutea*, (yellow). It blooms in March." In the fall of 1878 I purchased one bulb, and from it I saved five bulbs. August 9, 1879, I potted those five bulbs in five separate pots, leaving them on a porch until danger of frost compelled me to take them in. I placed them near the glass in a bay-window, and three pots, or plants, of them are now in bloom (Nov. 17, 1879). I did not understand why you said they bloom in March. I now have in bloom *Oxalis lutea*, *floribunda alba* and *rosea*, all potted August 9th.—EDWIN AMASS, Brighton, Ill.

Our correspondent is quite correct in his treatment of *Oxalis*, and the results, as might have been expected when *Oxalis* are grown and potted as described. Those who purchase bulbs of seedsmen and florists cannot usually obtain them until October, as they are mostly imported from Holland, and in a pretty dry condition, and in that case they will not flower until late in the winter.

## PRUNING AND TRAINING AN OLEANDER.

MR. VICK:—My Oleander is higher than I would like to have it, and if I should cut it down, would it ever grow again? The body is two feet or more before it comes to any branches, and I would like to know how to make it branch out down nearer the earth. Will you please inform me?—MRS. F. A. H., New Berlin, N. Y.

Your Oleander tree, if cut back while still in a dormant state, and a little before it commences to make a new growth, will branch out freely just below where it has been cut. If you wish to make it branch lower down the stem or trunk, you should cut some notches in and through the bark where you want it to branch; a bud will form and a branch start immediately below each notch. Cut small notches transversely on the stem.

## A NEW VASE.

MR. VICK:—I send per express to-day a glass ball, (such an one as is used by sportsmen to shoot at.) You will notice I put a small tin flange around the neck, so as to hold the string apart in hanging it up. The ball is to be filled with water and used for small bouquets. I think they look lovely hanging in a window. They are cheap, and can be had at any gun dealer's at a cost of about two cents each.—MRS. C. P. B., Edwardsville, Ill.

The glass ball sent us is nearly three inches in diameter, with a neck sufficiently large to hold a neat little bouquet, or sprays of Ferns, Grasses, and such like to advantage.

FALLING OF THE LEAVES.—Many persons complain that plants removed from the garden to the house lose their leaves. This is because they have been kept too long in the open ground, or the room is too warm. The sudden and extreme change is the cause of the trouble.







### THE SNOW-DROP.

LANGUAGE: "Though chilled by adversity I will be true to thee!"

When all the swarms of golden butterflies,  
That fluttered gaily through my garden bowers,  
Are swept away, and autumn's tearful skies  
Bend low and brood o'er the departed flowers,

See the brave Snow-drop,—its own lovely world—  
The old year's moon, a white and peerless star,  
Where peace her snowy banners hath unfurled,  
And truth, undying, beckons from afar.

Thus the fair maiden, with a soul as white  
As the sweet Snow-drop, in the world's ways:  
Never to thee an evil stain or blight—  
Love holds thee, dearest, in the winter days.

—MRS. H. R.

### WAITING FOR THE SPRING.

Fall soft and warm, ye winter rains,  
From gently bending skies;  
Fall soft and warm, for here asleep  
My Daffodilly lies.

And here my Snow-drop shuts her bells  
Within the frozen mould;  
And here my Crocus, in her heart,  
Doth nurse her buds of gold.

Shine bright and warm, O generous sun,  
Ye gentle south winds blow;  
Dissolve the chains that bind my flowers,  
The chains of ice and snow.

For they are waiting for the spring,  
The promise of the year;  
And though so dark, and cold, they wait  
Without distrust or fear.

Waiting to hear her gentle voice,  
And springing from the sod,  
To offer, first of Flora's train,  
Their incense unto God.

The Maple and the sturdy Oak,  
The Elm tree, strong and high,  
Stretch out their arms imploringly  
Towards the wintry sky.

For buds are waiting on each bough  
The coming of the spring;  
Waiting to see the streamlets flow,  
To hear the robins sing.

Then come, O sunbeams, warm and bright,  
And balmy breezes blow!  
Dissolve the chains that bind my flowers,  
The chains of frost and snow!

—MRS. V. G. R.

### THANK GOD FOR THE FLOWERS.

Thank God for the beautiful flowers  
That blossom so sweetly and fair;  
They garnish this strange life of ours  
And brighten our paths everywhere.

—DEXTER SMITH.

### CAPE JASMINE.

MR. VICK:—Will you please tell me what to do with my Cape Jasmine. I have had it four or five years and it grows smaller every year. For three years I repotted it every spring, and sank the pot in the ground in the sun. Two years ago I got some rich dirt from a hog-pen, and thought I had a sure thing of it, but, unfortunately it got frozen in the winter, and it has just lived. Last spring I set it out in the Pansy bed, on the north-west side of the house, taking it out of the pot. While I was away in the summer, something or somebody stepped on it and split it in two. I tied it up and put it in the pot, and there it stays. I have kept it in the sun and in the shade, down cellar, up stairs, in the bay window; it fact, in every place and position I could think of. I forgot to say it bloomed for three years, but the blossoms were very small. If you will please tell me what kind of soil, rich or poor, the sun or shade, much water or little, I will be ever so much obliged.—MRS. L. F. G., *Bristol, Conn.*

We regard this as a remarkably honest statement of facts, and it shows that the Cape Jasmine is endowed with great vitality. From the attempt it made to grow and bloom, we are encouraged to believe it would have made a better show for itself if it had not experienced so many calamities, nor so often changed its abode up stairs, down stairs, and in the lady's chamber. Potted in a light soil of two parts leaf-mold, two parts loam, and one of sand, with a small quantity of well-decayed manure, and placed in a light situation, and in a temperature of 65° to 70° ordinarily, with attention to water when necessary, and frequent syringing and spraying the foliage, it will be found to thrive well. Usually we have no difficulty in suggesting remedies when we have a knowledge of the circumstances.

### FINE ASTERS AND PANSIES.

MR. JAMES VICK:—Having obtained quite an assortment of seeds last spring, and among them a package of variegated Asters, which have much pleased me, and have been the admiration of our little village, I have thought it might also be pleasing to you to learn of their growth and beauty. I have never derived such a pleasure and satisfaction from seeds for many years as I did from those planted last spring, but particularly my bed of Asters, which, indeed, seemed to attract at once the lovers of flowers who visited me. The flowers were in color from the most brilliant down to the most delicate shades and tints.

My Pansies, which I must not by any means ignore, were also magnificent, and one plant, a fine King of the Blacks, which I took especial care to watch, and to count its blooms, really produced the large number of 103. Now I know this will please you, and I would also like to know if any one else of your readers rivals me as regards raising of Pansies.—MRS. J. B. P., *Baltimore county, Md.*



## SOME BULBOUS PLANTS.

JAMES VICK:—As a subscriber of your valuable MAGAZINE I take the liberty of asking you the following questions:

1. How can I protect *Amaryllis longifolia* from frost in winter, and how are they generally cultivated.
2. What is the cause of my Grape Hyacinth, *Muscari racemosum*, producing leaves in fall, as mine have now at this date, October 22. The leaves are eight inches long. Will it injure next year's flowering.
3. Can I plant *Gladiolus Byzantinum communis* and *nanus* in spring as well as in fall.—L. W., Chicago, Ill.

1. *Amaryllis* bulbs are impatient of frequent shiftings. Instead of turning them out in the spring it is better to grow them in fair-sized pots and plunge them in the border; of course more careful watering is necessary in this way than if turned out. By middle of September the pots may be removed to the house and the bulbs gradually dried off, and then they should be allowed to remain dormant until about the last of January.

2. The past autumn was a very unusual one. Many of the spring flowers appeared, and spring-flowering shrubs bloomed, and this remarkably mild weather at that season may have caused the growth of the Grape Hyacinth.

3. Bulbs of the species of *Gladiolus* named, if planted in spring, probably would not flower, or if they should, the bloom would be weak.

## TREATMENT OF PLANTS.

Will you advise me how to treat *Aspidistra variegata*, *Tradescantia discolor*, and *Chorozema varia*, in regard to soil, sun, moisture, temperature and rest?—Mrs. E. C. W., Saxton's River, Vt.

The *Aspidistra* likes a good soil, such as would be formed by equal parts of leaf-mold and sand and three parts good turf loam well mixed with a small amount of well-rotted manure. During winter this plant will not require a temperature above 50°, and only enough water to retain a moisture in the soil; but as spring approaches it should have more heat, and as soon as growth commences, a liberal supply of water, and this should be afforded it all through the summer season. A full exposure to the sun at all times is desirable.

With the exception of having a lighter soil, the requirements of the *Tradescantia* are very much the same as the *Aspidistra*. It is a moisture-loving plant, and, in its growing season, requires an abundant supply of water.

The *Chorozema* requires a light soil, a good exposure to the sun, but very little water in winter, and only a moderate amount at any time, and a temperature of 50° to 60° in the dull season, and not above 70° to 75° in summer. A very little liquid manure during the flowering season will prolong it and increase the amount of bloom.

## SELF-SOWN PETUNIAS.

MR. VICK:—In the last number of your MAGAZINE I noticed a question asked by Mrs. C. H., Brooklyn, L. I., "Do Petunias come up again next season without seeds?" Your reply was, "In the climate of Rochester or that of Brooklyn, if any plants should start from self-sown seeds they would be usually destroyed by the frosts of spring." This has not been my experience with Petunias. Four years ago I ordered some seeds, and with the rest was a package of Petunia seeds, blotched and striped. They came up well, and we thinned and transplanted to other places in the yard, and they grew and blossomed, and we thought we were well paid for our trouble. They blossomed until late and the snow came and covered them in full bloom.

The next spring I had no use for the seed I had been so careful in gathering, that none would be wasted, for as soon as it was warm enough the ground was covered with Petunias. We thinned them and threw away a great many plants, besides giving to others for their gardens. In a short time the Petunias were blossoming as well as they did the season before. They came up the third and fourth seasons in the same way. I think new seed should be sown the third year, as they will deteriorate in quantity and color.—A. P., Wood's Corners, Mich.

There are two classes of Petunias, the large-flowered, or Grandiflora section, and the small-flowered, to which the blotched and striped belongs. The latter are the more hardy, and often produce good plants from self-sown seed, though not at all freely in this section. The young plants start so early in the season that they are mostly destroyed by late frosts. Some other flowers, like the *Phlox Drummondii*, make abundance of plants in the autumn from dropped seed, but scarcely one will be left in the spring.

## FLOWERS IN THE SCHOOL ROOM.

The *California Horticulturist* says: "We recently visited a school-room in Alameda county where there were blossoming vines of *Maurandya* in pots by the windows, together with yellow and scarlet *Tropæolums* and boxes of Pansies; while two hanging baskets of *Lobelia* and *Coleus* made the room look much more pleasant than the average school-room. It was told us in strict confidence that the total cost of this flower display was twenty cents for Pansy and *Lobelia* seed. The rest of the plants were raised from cuttings, and the baskets were home-made.

## FLOWERS OF CALIFORNIA.

A correspondent in California writes us about *Lilium Humboldtii*, which he saw "ten feet in height, and purple and yellow Lupins fifteen feet in height, and fragrant Azaleas of snowy whiteness, with the lower leaves blotched with gold." We have seen and admired all these, and while we cannot have and enjoy many beautiful things that grow so luxuriously on the Pacific coast, we still have a world of beauty here.



TAGETES SIGNATA PUMILA.

#### FRENCH MARIGOLDS AS POT-PLANTS.

We are far yet from knowing all the uses some of our commonest flowering plants can be applied to. Probably none of our readers have thought of adopting the Marigold for a house plant; but such seem to be its capacities. In England the past season, we read in a foreign journal, they have been tried for this purpose with much satisfaction. The seed was sown the last of June, and the young plants, as soon as strong enough, potted into medium-sized pots. In a short time the roots became pot-bound and then the plants commenced to flower, and were still in full bloom the middle of November, with a prospect of continuance most of the winter.

We think *Tagetes signata pumila* especially might be used with advantage as a late or winter-blooming house-plant. It is a plant of handsome form and beautiful foliage, and bears a great profusion of its little, yellow flowers, as will be seen from an engraving taken from a growing plant in our garden, and forming a globular mass of flowers more than a foot in diameter, the blooms almost concealing the leaves. But any of the dwarf French varieties will probably be found good. In our climate, the middle of July, or even first of August, would

be early enough to sow the seed, as our bright, warm, autumn weather would bring the plants along fast enough to secure a good growth by November.

#### THE CALLA WHILE GROWING.

Ought I keep water standing at the roots of my Calla? Does it require it all the time when growing? What is the most suitable soil for it, heavy clay or something lighter with sand? Ought I to keep it in the full sunlight?—Mrs. E. L. T., *Indianapolis, Ind.*

The Calla cannot have too much water while growing and blooming. A saucer with water constantly supplied for the pot to stand in, is the best treatment for the plant in this respect. The Calla grows naturally in bogs and low grounds at the edges of ponds and rivers, with its roots in the soft mud. In the summer season the streams dry up, and the waters of the ponds recede from their banks, while, at the same time, a tropical sun beats down and dries and stiffens the soil until it cracks open. Such are some of the conditions under which this plant exists in a state of nature, and the essential features which, in a modified form, it demands in cultivation. It does not require a heavy clay, but a pretty strong, rich soil is best for it. It should have a full exposure to the sunlight.



### THE ROSE SLUG.

In a late number of the *Gardener's Monthly* Miss MARY C. MURTFELDT, who has given the study of the Rose slug, *Selandria rose*, much attention, attests that while the statements of Dr. HARRIS, in his "Insects Injurious to Vegetation," are "mainly correct the Doctor omits certain interesting particulars in its history, and makes one serious mistake." The error into which the Doctor has fallen is that there are two broods of insects each season, the latter one occurring in August. "This is the point," says Miss M., where Dr. H. is in error, unless the Rose slug of Massachusetts is a different species from the one from which we suffer," (in Missouri), "which, as the two insects seem to agree in all other particulars, is scarcely supposable. Having watched the insect through its transformation for several successive years, I am convinced that it is not double-brooded with us, and as our season is much longer than summer in Massachusetts, it stands to reason that it is not double-brooded in more northern latitudes. As Dr. HARRIS's mistake has been followed by all the subsequent writers on the subject, it occurred to me that it would only be the part of kindness to Rose culturists to undeceive them, or rather to reassure them on this point. There is an adage to the effect that 'it is not necessary to paint a certain personage blacker than he is,' which holds good in the present case. It is certainly bad enough to have to contend with one brood of this destructive pest, without the discouraging information that almost as soon as the spring brood disappears the autumn brood will hatch. Therefore, let all who entertain such fears take heart. If the slugs can be kept from blighting the foliage during the months of May and June, no further trouble need be apprehended from them until the following year, as they remain unchanged within their cells for more than ten months. Although the individual larva feeds only for about two weeks, yet, as the flies live and continue to lay their eggs for some time, the slug season lasts for nearly a month, and if the insects are neglected at the end of that time the foliage of the infested plants, with the green tissue eaten in large irregular patches from the upper surface, will appear as though scorched with fire. Bourbon, Tea, and other perpetual Roses, naturally suffer most in this ordeal.

"The Rose slug has a number of natural enemies, such ichneumon parasites, lady-bird larvæ, cannibal bugs, spiders, and the like, but none of these are, as yet, equal to the task of keeping it sufficiently in check.

"The most thoroughly effectual remedy is whale-oil soap, in the proportion of one pound

of soap to eight gallons of water. This should be applied at night, the plants being thoroughly drenched. Three applications, at intervals of two or three days, will almost, if not quite exterminate the pest. Powered white hellebore and the Persian insect powder dusted on the plants while the dew is on them are also excellent remedies."

We have never known the slug to feed on Rose foliage late in summer, and the observations of Miss M. correspond to our experience with this insect.

### THE BEST VARIETIES OF ROSES.

An agricultural and horticultural society in Germany has been sending out a set of questions, in reference to the best kinds of Roses for different purposes, requesting answers that will give information similar to that contained in the valuable paper read before the Horticultural Society of Western New York, by Mr. Henry B. Ellwanger, last winter, but somewhat wider in its scope. All Rose-growers are interested in this subject and, as suggestive to horticultural societies in this country that may desire to give it attention, we lay these questions before our readers. Probably for this country some other information might be sought and the questions somewhat modified. Questions 9 and 10 appear to be superfluous, if satisfactory answers are given to the others. The seventh question, Which five varieties are best adapted for cultivation in rooms? is particularly interesting, and we should be pleased to receive replies to it from our correspondents, with any remarks in relation to it they may make:

1. Which are the three best Roses as regards form, substance, habit, and scent in each of the following colors?—*A*, Hybrid Perpetuals and Bourbon Roses—*a*, pure white; *b*, tinted white (pale flesh-color); *c*, pale pink or light rose; *d*, bright pink or deep rose; *e*, carmine; *f*, scarlet and vermilion; *g*, purple and crimson; *h*, dark maroon or brownish; *i*, violet; *k*, striped. *B*, Tea-scented Roses and Noisettes—*l*, pure white or slightly tinged (three Roses); *m*, pink (rosy); *n*, tinted pink; *o*, pale and bright yellow; *p*, yellow tinted.

2. Which are the three most beautiful Moss Roses?

3. Which five varieties of Roses are the greatest favorites and the most generally cultivated in the district of the correspondent?

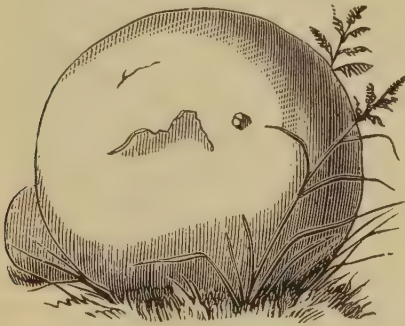
4. Which five Roses are distinguished by—*a*, uninterrupted blooming; *b*, superior scent; *c*, hardness?

5. Which five Hybrid Perpetuals are the freest bloomers—*a*, for the summer; *b*, for the autumn?

6. Which are the ten best Roses for forcing?
7. Which five varieties are best adapted for cultivation in rooms?
8. Which are the three most beautiful pillar Roses?
9. Which ten novelties from 1873 to 1878 are of such remarkable beauty that their cultivation and distribution can be recommended without the slightest hesitation?
10. Which are the best ten English-raised Roses?

#### FUNGI OF ONTARIO COUNTY.

In the November number of your MAGAZINE, page 322, I was much pleased with the article on Mushrooms. Having been a gatherer for several years in Ontario county, I would like to



LYCOPERDON GIGANTEUM.

give a short description of the wild varieties of this section. I am sorry I cannot draw the outlines, but will give your readers the best account I can with the pen.

*Lycoperdon giganteum*, or Giant Puff-ball, grows in meadows and orchards, and makes a most delicious dish when cut in thin slices and fried. Eaten with salt and pepper it resembles oysters; should be served hot as it is not good



AGARICUS ARVENSIS.

after it becomes cold. It is the color of the *Agaricus campestris*, and has the same kind of skin, only thicker. It is perfectly compact, and often weighs a pound. It is about the shape

and size of the human head, cut across the eyes to the skull. It is found in August or September, usually after a rain. There are some other varieties suitable for catsup.

The *Agaricus arvensis*, or Horse Mushroom, is very nice for cooking into catsup. It resembles the *Agaricus campestris*, only it is white under the gills in place of pink. It has a delicious odor, and we have found it very pleasant used as a condiment.—A. B. S., Canandaigua, N. Y.

#### THE ARCTIC WILLOW.

Our readers will be able to judge somewhat of the slow progress of vegetable life in the arctic regions by the following statement of Professor GRAY: "Among the specimens brought from Grinnell Land by the British Polar expedition of 1875-6, from the Alert's winter quarters, latitude  $82^{\circ} 27'$ , is a piece of dead stem of *Salix arctica*, a centimetre and a half in diameter, 'on a section of which nearly forty annual circles' of very different sizes have been counted. This is said to be 'the finest piece of indigenous timber yet met with in Grinnell Land.'"

In order to give as correct an idea as possible, we have made an engraving showing, as closely as may be calculated, the actual diameter of this piece of "timber." we can very easily raise a shoot here from a cutting, the first year, of equal size; to require forty years to produce a stem of the same size, the annual growth must be slight indeed.



#### AURATUM LILY.

JAMES VICK:—Four years ago I bought several *Lilium auratum* bulbs which have done very finely. Last summer one of the bulbs produced two large and several small stalks, one of the large ones producing thirteen and the other, twelve, very large flowers. Last fall I separated the smaller bulbs, leaving the main one. Those I removed bloomed this year, and the main bulb gave one very large flat stalk, which had fifty buds, twenty-four of which produced perfect flowers. As this was to me something I had never witnessed or heard of before, I concluded to send you the stalk, and would like to know if it is not very unusual?

I have been quite successful with my *Caladium esculentum*. Last year I had one leaf four feet nine and three-quarter inches long, and many others four feet three inches. How many of your readers can surpass this? My bulbs increase rapidly.—J. M.B., Bristol, Pa.





## BOTANY FOR LITTLE FOLKS.

The flower of a Snapdragon! Children love to play with it, and press it sideways to make it open its mouth. How it grins! The Toad-flax that grows on the roadside is like it, so is the Monkey-flower. This shape of the flower is very common in a family of plants called Figworts; why these plants are called Figworts we cannot say, unless it is that the seed-vessel often has the shape of a little fig. If any of our readers know of a better reason for the name, we should like to have them tell us. The Figworts are mostly herbs or soft-wooded plants, but a few of them are shrubby, and there is one tree among them, the Catalpa. The flowers of some of the plants of this family are not so very irregular as those of the Snapdragon, but they are more or less so, and they have other peculiarities in common that enable us to distinguish them with much accuracy. We can have no better flower to examine, to learn about the Figworts, than the Snapdragon. The calyx of this flower is like a little cup having its rim or upper part divided into five points. The corolla is one piece, tubular at the lower part, but divided at the opening so as to look like a mouth. The upper lip is divided into two lobes and the lower into three. From the fact that the calyx is five-parted, and that the lips of the corolla have five lobes, we perceive that the numerical plan of this flower is five; we have a right to expect five stamens, or twice five, or at least some multiple of five. At *fig. 2* the half of a flower is shown, cut from top to bottom, and we can perceive here only two stamens, one longer and one shorter, each having a two-lobed anther. Looking now at *fig. 3* which is that part of the corolla having the lower lip, we notice there are four stamens attached to its face, two shorter and two longer ones. Is this all? Four stamens instead of five! What truth is there that flowers are constructed according to a numerical plan? Let us seek for the fifth stamen. *Fig. 4* represents the other, or upper half of the corolla, and at its base may be seen

a little pointed object; this is the rudiment of the fifth stamen. It never advances beyond this state, and the flower seems to do very well without it. Whether this rudiment has once been a full-sized stamen and has been degraded to its present condition, or whether it has never advanced beyond its present state, is a question for very wise heads to ponder over; perhaps they will never decide.

We can now understand the diagram of the flower, as shown at *fig. 5*. The heavy, dark



*Fig. 1.* Snapdragon.

line below all the others indicates a little bract that is situated at the base of each peduncle or

flower-stem, as may be seen in *fig. 1*, below the lower flowers. The five heavy, curved lines



*Fig. 2.* Vertical section of flower.



*Fig. 3.* Lower half of involucre with stamens attached.

indicate the divisions of the calyx; the curved lines next within, and united by the short, light lines, indicate the corolla, the lower part of it having three divisions and the upper two. The four double-lobed stamens are situated next to the lower part of the corolla, and a small point opposite the upper part shows the place of the abortive stamen. The ovary is represented as



*Fig. 4.* Upper half of involucre with rudimentary stamen.

two-celled, with numerous seeds. *Fig. 6* shows a section of the seed-vessel with the seeds.

We have now a very good idea of the formation of this flower, and probably will have but little difficulty in recognizing it in connection with any member of the family. The leaves of some of the Figworts are arranged alternately, on some they are opposite, and on others, in whorls.

The botanical name of this natural family is *Scrophulariaceæ*; meaning plants like the *Scrophularia*, which is one of the genera. *Scrophularia* was once used medicinally for scrofula, hence its name.

The Foxglove, *Digitalis purpurea*, is a well-known member of the family, not only as a wild plant, or as cultivated for its large spikes of showy flowers, but for its use in medicine; for this purpose it has long been employed, and a dilute preparation of it is a favorite remedy of homeopaths. The active principle in *Digitalis* is a deadly poison,

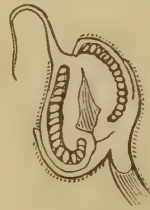


*Fig. 5.* Diagram of flower.

and care is necessary in the use of it. Many of the plants of this order have poisonous qualities.

The *Pentstemon* and the *Maurandya* are very interesting flowering plants and are well worthy the attention given their cultivation.

The *Mimulus*, or Monkey flower genus, has produced in the garden some beautiful sports, or varieties, beautifully spotted, and one of them with a double corolla is shown at *fig. 8*. The Musk plant, *M. Moschatus*, is a great favorite,



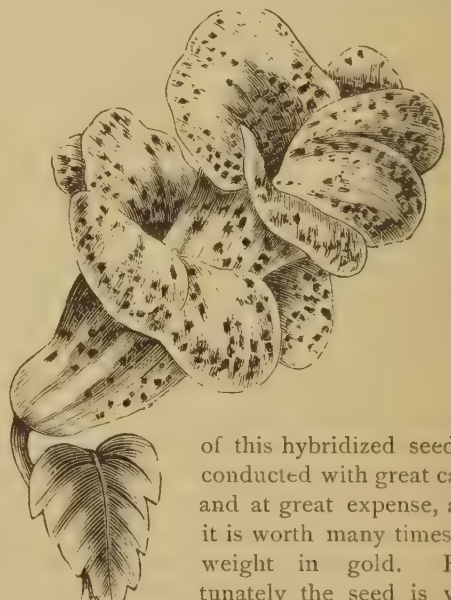
*Fig. 6.* Seed vessel divided.



*Fig. 7.* Pistil.

on account of the odor of musk which it constantly exhales.

The plant cultivated with the greatest care in this order is the *Calceolaria*. It takes its name from the singular form of the flower, which is like an old style of slipper, *calceolus*. The flowers of the *Calceolaria* are gems in the conservatory. The plants are raised without much difficulty from seed produced by crossing, or hybridizing, several natural species that originally came from South America. The raising



*Fig. 8.* *Mimulus*.

of this hybridized seed is conducted with great care, and at great expense, and it is worth many times its weight in gold. Fortunately the seed is very fine, so that enough for a sowing can be purchased for a moderate sum.

Flower cultivators will recall some old garden friends as we mention the names of other members of this order, such as *Alonsoa*,



Linaria, Lophospermum, Browalia, Collinsia, Salpiglossis, Phygelia, Wulfenia, Veronica, &c. Several species of Veronica are used for medicinal purposes.

The *Castilleja coccinea* is a curious little member of this family. The flower is a dull straw-color, but the leaf next below is a bright crimson. BRYANT saw it in Illinois, and wrote :

The fresh savannas of the Sangamon  
Here rise in gentle swells, and the long grass  
Is mixed with rustling hazels. Scarlet tufts  
Are glowing in the green, like flakes of fire ;  
The wanderers of the prairie know them well  
And call that brilliant flower the Painted Cup.

One of the most common and well-known plants of the order is the Mullein, *Verbascum Thapsus*. If our young friends examine Mullein flowers next summer, they will find that



Fig. 9. Calceolaria.

they have all the stamens, five in number, of full size. A little careful observation of any of these flowers, whenever you see them, will fix them in your minds so that you may easily recognize the relationship when you first see a new species. It requires some training by one's self to observe the difference in plants ; but the training of the mind is, itself, worth all the effort, and an intimate knowledge of plants is of great value and a source of much refined pleasure.

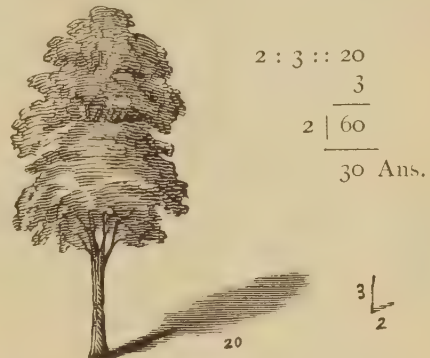
### THE HEIGHT OF TREES.

To be able to ascertain approximately the height of a tree, a house, a clump of rocks, or the width of a river, as one travels along through the country on a summer vacation, is calculated to make the journey more interesting, particularly if we should be making notes by the way.

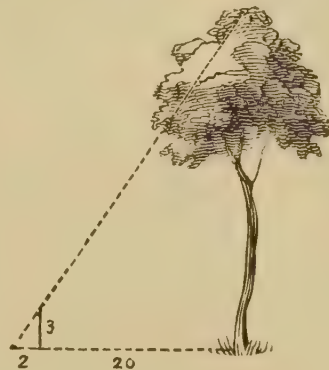
The height of a tree may be estimated sufficiently exact for ordinary purposes by the following method :

Being in the neighborhood of a tree, the height of which you wish to know, and in your hand you carry a walking cane, or a jointed fishing rod, and supposing the cane, or a length of the rod, is three feet, set it in the ground perpendicularly and, if the sun shines, it will

cast a shadow ; now, with a pocket rule, you measure the length of the shadow, and find it, say two feet. Here, then, we have a right angle of two feet and three feet. Now, supposing the tree to be tolerably straight, measure from its base to the end of its shadow, and we will suppose it to be twenty feet. Now, if a cane three feet high casts a shadow of two feet, how high must a tree be to cast a shadow of twenty feet? Or, in other words, if two gives three, how much will twenty give ?

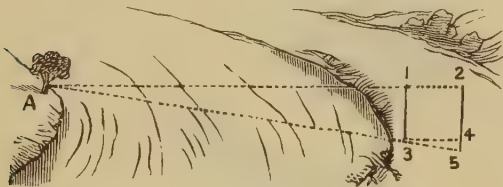


But suppose the sun don't shine, what then ? Why, then set up the cane as before, say eighteen feet from the base of the tree. Now, place your head on the ground, with the cane between you and the tree, moving nearer to or further from it, until you can just see the top of the tree over the top of the cane ; place a pebble or mark on the ground at the point where you obtain this view. The cane being three feet high, the distance from the pebble to it will be two feet, and from the pebble to the base of the tree twenty feet ; hence, by the same rule, we ascertain the height of the tree to be thirty feet, thus :



The same rule, somewhat differently applied, will give us the width of a river. In our illustration, the spectator looks directly across the river at some object on the opposite bank, say a bush—that is the point of sight, A. Placing a stone, fig. 1, to mark the spot where he stands, he goes back thirty feet, and keeping

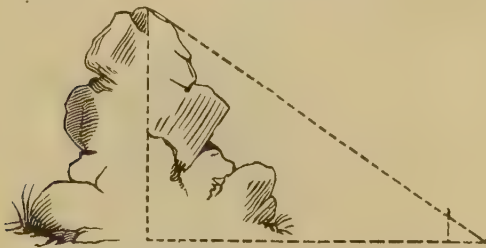
the first stone in line with the point, A, he places the second stone, 2. Now, by going thirty feet directly to the left of each of these stones, two other points are made, 3 and 4. This gives a square of thirty feet, and should be made as accurate as possible. Now, let the spectator, looking toward the point of sight, A, move to the left of No. 4 until No. 3 comes in range of vision; this gives the last point, 5, as seen in the sketch. From 5 to 2 is the base line; intersected by the line 4 and 3 we have on the left a triangle. Suppose the short side, or base of this triangle, from 5 to 4, is two feet, the long side we know is thirty feet. Then, if two gives thirty, what will thirty-two (the entire base line) give?—thus:



$$\begin{array}{r} 2 : 30 :: 32 \\ \quad 30 \\ 2 \overline{) 960} \\ 480 \text{ Ans.} \end{array}$$

Four hundred and eighty feet, then, is the distance from fig. 2 to the brush, or thirty feet less from fig. 1, making the distance about 450 feet from bank to bank.

When Dr. LIVINGSTONE, traveling in the wilds of Africa, first came in view of the magnificent Victoria falls, he was without instruments; but the most provoking trial to him was, that he had forgotten these simple rules of his schoolboy days, and in great sorrow of



heart was obliged to turn away from this beautiful river, without even being able to "guess" its dimensions.

The height of a mountain cannot very well be ascertained in this way, because, owing to their sloping sides, it is often impossible to make or imagine a base line, the right angle of which shall come immediately under the highest point; but perpendicular bluffs, or a clump of rocks, a tower, or a steeple, and the like, may usually be measured as shown in the last illustration.—J. W.

## FUN AMONG THE FLOWERS.

Dame Nature is wonderfully prolific in her productions, both in quantity and variety, and, while we may observe endless diversity, there are evident instances of marked similarity, where nature seems to duplicate or mimic her own handiwork. For instance, we have insects resembling various parts of plants, such as the leaf and walking-stick insects, while in the



FLY ORCHID.

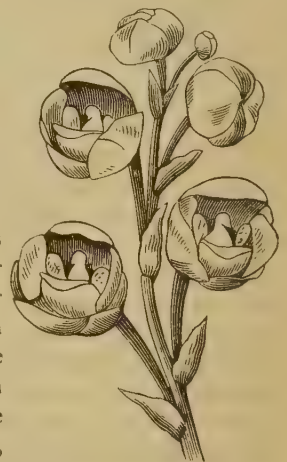
BEE ORCHID.

ocean are to be found sea anemones, beautiful, living creatures, that remind us forcibly of various species of flowers; so, in the family of plants known as Orchids, there are many flowers whose eccentric forms and vivid colorings resemble closely the forms of well-known insects and other animals.

Our first illustration is that of the Fly Orchid, *Ophrys muscifera*, a most lovely species.

The second figure is that of the Bee Orchid, *Ophrys apifera*, a beautiful plant and, in suitable situations, a free bloomer.

The Man Orchid, *Aceras anthropophora*, produces a very curious flower, readily recognized, because of its singular resemblance to a little man hanging by the nape of the neck. These Orchids grow freely in the meadows and chalk downs of the south of England; but by far the handsomest and most peculiar are those belonging to warm climates, and known as Epiphytes, or air plants, owing to their habit of growing on trees or stumps, like the Mistletoe. From this class we give our fifth illustration, that of the Butterfly



DOVE ORCHID.

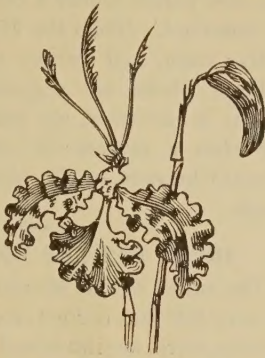
Orchid, *Oncidium papilio*. This charming flower has the appearance of a butterfly resting on the top of a stalk. It is said to do well in a fernery.



The third figure is that of the Dove Orchid, or, as the Spaniards call it, the Holy Ghost plant, a very curious plant, with thick, fleshy,



MAN ORCHID.



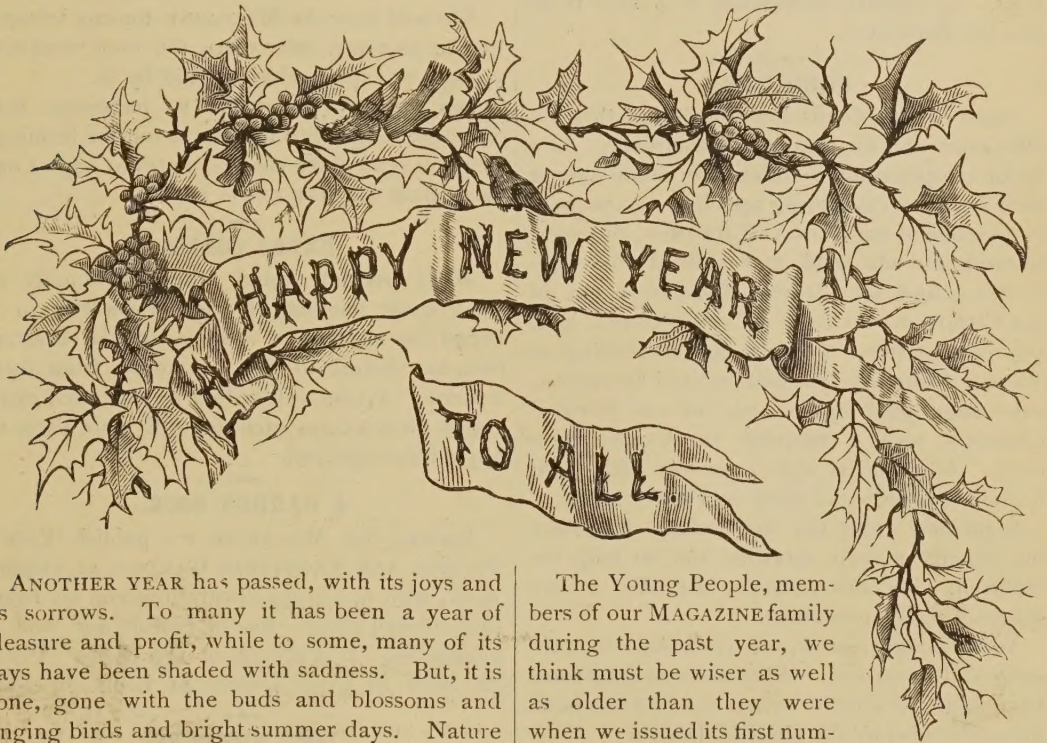
BUTTERFLY ORCHID.

white flowers, somewhat cup-shaped, in the centre of which is a formation resembling a dove, the emblem for the Holy Spirit, and hence the name of the plant.

### CALIFORNIA ORANGES.

MR. VICK:—We have been talking about California and its Oranges at our school. Why do we have Oranges from Cuba and Spain, and other foreign parts, if we can grow plenty at home? Or, are not California Oranges good?—JAMES T. G.

We know California Oranges are good, because we have eaten scores of them. If we remember right, the first we ever tasted were a present from Colonel WARREN, of the *California Farmer*, while we were stopping once at a hotel in San Francisco. We had seen plenty in the markets, but they were large and coarse-looking, and a little mottled with green, so from their appearance we judged they were not very nice, but were agreeably surprised in tasting them. After that we feasted on California Oranges. We judge it is too expensive to bring Oranges overland, and the sea voyage is too long. Freight by land would cost some five dollars per hundred pounds.



ANOTHER YEAR has passed, with its joys and its sorrows. To many it has been a year of pleasure and profit, while to some, many of its days have been shaded with sadness. But, it is gone, gone with the buds and blossoms and singing birds and bright summer days. Nature is at rest—asleep; but in a little while there will be an awakening, that will seem almost like a new creation. Spring, with all her light and life and loveliness, will rise from winter's grave.

The past will never come back—1879 is gone forever. The failures and successes, the toils and triumphs of the dead year, can live again only in memory. Let us learn wisdom from the past; learn to live better, that we may live happier. For, in all but a few exceptional cases, misery or happiness is the legitimate fruit of our own conduct.

The Young People, members of our MAGAZINE family during the past year, we think must be wiser as well as older than they were when we issued its first number, and therefore better prepared for the duties and responsibilities of life—more fitted to enjoy its good and conquer its evils. Those who have carefully studied and stored up the facts contained in our chapters on botany, have a fund of knowledge on the subject that will prove a pleasure all through life, and enable them to afford instruction and happiness to others.

It is not wise to make many promises for the future, but it is our intention to make the MAGAZINE more interesting and instructive than ever



before, and therefore, we hope a goodly number of young people will enjoy its benefits.

With these remarks, which seem appropriate at this season, we wish a **HAPPY NEW YEAR TO EVERY ONE**, and as the happiness of New Year's Day is in wishing and making others happy, so may we enjoy happy days all through the year.

#### ORANGES AND OLIVES IN CALIFORNIA.

When in California we saw Orange and Olive trees, at Oakland, planted by J. ROSS BROWNE, at his home. He has since died, but his work remains. The *California Horticulturist* says these Orange trees are now over fifteen feet in height, and are bearing large fruit. The Olives are also bearing.

#### PINK-FLESHED APPLE.

Californian papers are describing a seedling Apple, grown in Grass valley, with beautiful pink flesh. This will be something new for the boys. In outward appearance it is said to be like the Bellflower.

#### PREMIUMS.

Some of our friends have suggested that we offer premiums for obtaining subscribers. As a slight compensation to those who labor among their neighbors in getting up clubs, we propose to give one of our **FLORAL CHROMOS**, on paper, to every one who sends us a club of *Five Subscribers*; and for *Twelve Subscribers* one of our **CHROMOS ON CLOTH AND STRETCHER**, both sent postage free. To any person sending us *Twenty Subscribers* we will forward by express, expressage paid by us, one of our **FLORAL CHROMOS NICELY FRAMED IN WALNUT AND GILT**. All to be at club rates—\$1 each. Or, if preferred, the same value in Flower Seeds.

Some may prefer that their school shall have the benefit of their services, and so help the children. For this purpose, we offer a very splendid set of premiums.

We hope our friends will commence to work early and in earnest. Were all to do what some have done, we should have a hundred thousand subscribers before the close of January.

#### OUR FLORAL GUIDE.

It is our intention to make every subscriber to the **MAGAZINE** a present of a copy of our **FLORAL GUIDE**, just published. It is very handsome—100 pages, 500 illustrations, and an elegant colored plate. We are sending out two hundred thousand copies of this work, which takes some time, but if any of our readers fail to receive it in reasonable time, please send us a postal card stating the fact.

#### OUR MAGAZINE FOR 1880.

Many subscribers would do us and their neighbors a favor by getting up a club. There are few places where a club of five could not be obtained. Then the **MAGAZINE** costs only a dollar each, and twelve numbers and twelve colored plates are a good deal for a dollar. Then, in addition, we make the getter up of the club a present of one of our beautiful **Floral Chromos**, or the same value in Flower Seeds.

#### INDEX FOR THE VOLUME OF 1879.

The index of our **MAGAZINE** for 1879 should be very full and correct, for no less than three persons were so interested in the contents of the volume as to prepare and forward us indexes, and all for the love of the work. Among them Mr. J. H. WOODS, of Jacksonville, Ill., who furnished the very correct index for 1878.

#### BINDING THE MAGAZINE.

We will bind the **MAGAZINE** for any subscriber for 50 cents, and return the book with the postage or express charges paid by us.

Our colored plates are so handsome that some are tempted to take them out for framing. We will send extra colored plates to any of our subscribers for **FIVE CENTS** each.

#### EXTRA COPIES.

Many persons would like occasionally to send some number of the **MAGAZINE** to a friend, on account of some article or illustration, but dislike to lose a number from their volume. To our subscribers we will send extra copies for ten cents each, or will mail them to any address desired.

#### A GARDEN BOOK.

Besides this **MAGAZINE** we publish **VICK'S FLOWER AND VEGETABLE GARDEN**, an elegant work, with numerous illustrations and six beautiful colored plates—five of flowers and one of vegetables. It is a book of 170 pages. Price, 50 cents in paper covers, \$1 bound in cloth.

#### LOST NUMBERS.

If a number has failed to reach you during the past year, and your volume is incomplete, send us a postal card stating what number you want. It will cost you only a penny, and we will mail you the number at once.

#### BOUND VOLUMES OF THE MAGAZINE.

The Bound Volumes of our **MAGAZINE** will make a very fine present. We can furnish copies of 1878 and 1879 bound for \$1.75 each, postage prepaid.







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MORNING GLORIES.

PAINTED FOR VICKS MONTHLY